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### RAINBOW On Tape 6655 Highland Road Pontiac, MI 48054

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on tape

Your very own Pot O'Gold under the Rainbow for

**JUNE 1984** 

### June 1984 Rainbow On Tape

Page	Name	CTR-81	CTR-80
	MENU	2-6	4-10
19	PIANO	7-16	11-24
24	TONE ROW	17-22	25-34
28	LAYOUT	23-34	35-50
57	CLOVER	35-42	51-59
57	JOPLIN	43-49	60-69
61	WINDOW	50-56	70-77
65	ELECTION	58-61	78-83
67	OVERTURE	62-64	84-86
69	LOCOCOCO	65-70	87-93
77	MUSI1812	71-94	95-119
BONUS	CTRYROAD	95-103	120-128
89	DOODLER	104-106	129-131
94	BASEBALL	108-150	172-171
108	SCRNQUIZ	151-157	133-177
110	QUIZMAKR	158-165	178-183
121	NUMBERS	166-169	184-186
130	VOTRAX	170-172	187-189
132	CLASSICS	173-186	190-199
142	BANDY1	187-197	200-208
144	BANDY2	198-209	209-216
160	CONNECT4	210-215	217-220
164	GUITAR	216-242	221-238
176	TYPESET	243-250	239-243
181	CHORDS	251-265	244-252
185	MUSIC	266-276	253-258
206	WALPAPER	277-280	259-261

#### \*Machine Language Program

Check the accompanying articles in **RAINBOW** on using each program. These programs may not run on your system. Please check each program in the magazine for system requirements.

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RAINBOW On Tape 576 So. Telegraph Road Pontiac, MI 48053

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Your very own Pot O'Gold under the Rainbow for

**NOVEMBER 1984** 

### November 1984 Rainbow On Tape

Page	Name	CCR-81	CTR-80
NOV	MENU	11— 15	16— 23
023	EZ LIST	16— 19	24— 28
031	MSGCENTR	20— 26	30— 38
037	ROADRACE	27— 33	39— 48
045	PATCH	34— 38	49— 54
048	INITMEMB	39— 40	55— 57
048	EDITOR	41 — 42	58— 59
048	SYSOP2	43— 47	60— 65
052	CC TALK	48— 51	67— 70
059	CCTLOAD	52- 58	71— 79
085	WORDGAME	59- 63	80— 85
092	JNKFOOD1	64— 72	86— 95
094	JNKFOOD2	73— 80	96—104
095	JNKFOOD3	81 — 88	105—113
099	JNKFOOD4	89— 95	114-120
101	HANDLER	97—127	122—150
117	CLOADMOD	128—130	151-152
132	PERSAVE	131 <b>—</b> 139	154—161
144	DOSSTART	140—143	162—164
147	CWC5V10	144—157	165—176
147	CWC5V11	158—171	177—187
148	DATESET	172—176	188—191
169	JINFILE	177—197	192-206
179	FOOTBALL	199—229	207 <del></del> 226
247	DATABASE	230—242	228-235
256	GUIDE	243—247	236-238
273	*DEADRECK	248—275	239-255

### \* Machine Language Program

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**Special Note:** When using *CWC5V10* or *CWC5V11*, *LIST* the program and follow the instructions given at the beginning of the listing.

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tape

Your very own Pot O'Gold under the Rainbow for

**FEBRUARY 1985** 

### February 1985 Rainbow On Tape

Page	Name	CCR-81	CTR-80	Page	Name	CCR-81	CTR-80	
FEB	MENU	12-20	19-30	134	DISPLAY3	127-12	150-151	
036	PENGUIN	22-31	33-45	134	DISPLAY4	130-13	152-155	
045	WEFAX	33-42	48-59	135	DISPLAY5	134-136	156-158	
065	COMPSHOR	44-48	61-67	135	DISPLAY6	138-140	160-162	
070	SPACRACE	50-62	69-84	135	DISPLAY7	142-144	163-165	
077	CUPID	64-76	86-99	144	COCOPADD	146-150	166-170	
105	BS OCG	78-91	102-115	161	MERGE	153-155	173-174	
109	DRIVER	94-95	118-120	165	COCOMON	157-166	176-183	
112	*SCREEN51	97-100	122-124	175	DSKMERGE	168-172	184-189	
116	*FIND	102-103	127-128	240	SENTENCE	175-178	190-192	
122	<b>MATH LAB</b>	105-118	130-141	240	BONUS	180-184	194-197	
133	DISPLAY1	120-121	144-145	246	BAZAAR	186-198	198-207	
134	DISPLAY2	123-125	146-148	281	BIN TREE	201-215	209-219	

### \*Machine Language Program

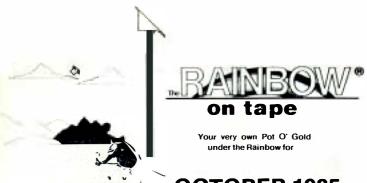
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**Special Note:** To exit from the RAINBOW ON TAFE MENU, press the (up arrow) key. You may have to press it several times until the screen clears. After using any machine language program (including some BASIC programs), turn your computer off and back on or type *POKE* 113,0:EXEC 40999 to clear it before loading another program.

RAINBOW On Tape P.O. Box 506 Waterford, MI 48095

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OCTOBER 1985

### October 1985 Rainbow On Tape

Page	Name	CCR-81	CTR-80	Page	Name	CCR-81 CTR-80
ОСТ	MENU	9-17	14-27	073	PUZLMAKR	113-124 137-147
018	LINEDRAW	19-21	29-32	085	RADIALS	126-129 149-152
019	SPEAK2ME	23-27	34-39	085	DANCE	131-133 154-156
019	CHARLIE	29-30	41-45	880	64KDRVR	135-141 158-162
020	KROMICO	32-36	47-52	880	*SOUND	143-145 164-165
021	HANOI	38-41	54-58	118	FISH	147-148 167-168
021	RCIRCSIN	43-45	60-63	109	*F	150-152 170-172
024	BALL	47-50	65-69	BONUS	S*FLARGE	154-162 174-180
028	<b>ELEVATOR</b>	52-55	71-75	128	SNDSTORY	164-172 182-187
031	BYTECODR	57-64	<i>77-</i> 87	134	COCOCAD	174-202 189-209
038	NONINER	66-70	89-92	148	CADPRINT	204-209 211-214
046	<b>PUNCQUIZ</b>	72-76	95-100	151	REMOVREM	211-214 216-218
060	ANIMATE	78- <b>86</b>	102-111	1 <del>64</del>	HEART	216-234 220-231
060	DEMO	88-92	113-116	168	HELPDRAW	236-245 233-237
067	ZONX	94-111	118-135	176	MESSAGE	247-250 239-241
°M	lachine langua	ige progr	am	182	NMBRBMPR	252-260 243-246

Check the accompanying articles in RAINBOW magazine for instructions on loading and using these programs. (The corresponding page number is noted for your convenience.)

Since RAINBOW ON TAPE programs run the gamut, from 4K to 64K, from Color BASIC to Disk Extended Color BASIC, cassette-based or requiring disk drives, not all programs may work on your own system. Please refer to the corresponding magazine article for system requirements.

Tape counter numbers for both the CCR-81 and CTR-80 recorders are noted for your reference. However, counters vary from machine to machine and heavy usage will cause variance or, a given cassette due to stretching of the tape. Use our table as an approxir .e position only. Note: You must cue the tape to the blank spot right before a given program to avoid getting an I/O Error.

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(While many regram listings from THE RAINBOW may be slightly modified and typed in for use on Dragon and MC-10 computers, RAINBOW ON TAPE will not run on these machines.)

**RAINBOW On Tape** The Falsoft Building P.O. Box 385 Prospect, KY 40059

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Your very own Pot O' Gold under the Rainbow for

**FEBRUARY 1986** 

### February 1986 Rainbow On Tape

Page	Name	CTR-80	CCR-81 and 82
FEB	MENU	8-25	5-16
020	VALPRINT	27-36	18-23
023	VALNAME	38-43	25-28
028	PIXFILES	45-56	30-38
032	CRASHPRE	58-64	40-44
037	DISKMENU	66-71	46-50
039	DEBUG	73-79	52-56
041	MEMDUMP	81-83	58-60
045	*CRUN	85-86	62-63
046	INSTALL	88-90	64-66
046	TAPEDIR	92-96	68-71
056	CLOCKBAS	98-100	73-74
056	*CLOCK	102-103	76-77
060	BUBBLWAR	105-110	79-83
067	*MEMDIAG	112-114	85-87
096	FILESRCH	116-124	89-97
102	LOADER	126-129	99-102
103	CADPRINT	131-133	104-106
108	RESTORE	135-136	108-109
117	ROBOCISE	138-144	111-117
135	WHO AM I	146-149	119-123
146	TIN EAR	151-153	125-127
147	KOLAROLA	155-157	129-131
150	SUBTRACT	159-166	133-141
162	SUPERCLS	168-172	143-148
166	SOUND 2	174-178	150-155
167	SOUNDGEN	179-181	157-159
172	XREF	183-190	161-170
182	COMMANDO	191-204	172-188

<sup>\*</sup>Machine language program

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# BANBOW

# OCTOBER 1986

THE COLOR COMPUTER MONTHLY MAGAZINE

ON

The Color Computer Monthly Magazine

## ON DISK

### 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.

Some issues of **RAINBOW ON DISK** may be partially formatted under Disk BASIC on the back side as well as the front. You should check both sides

of the disk using Disk BASIC'S DIP command for this occurrence.

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. You are able to back up the OS9 formatted side of the disk under Disk BASIC. For the protection of the **RAINBOW ON DISK** master, the disk does not have write-protect notches, so you cannot accidentally write to it.

If you are running OS-9, you will find a READ.ME.FIRST file in the root directory. You should LIST this file to your screen or printer for information

about the structure of the OS-9 side of the disk.

The Disk BASIC side of the disk is 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.

Many of these programs require special loading instructions and other information necessary to the proper functioning of the program.

ZODM1.BAS is the actual ZOOM program. ZODM2.BAS, ZODM3.BAS and ZODM4.BAS are modifications. Therefore, they are saved in ASCII on the **RAINBOW ON DISK**. Because of this, you may just MERGE them with ZODM1.BAS in memory and run them.

For complete instructions regarding each of the files on **RAINBOW ON DISK**, refer to the October 1986 edition of **RAINBOW** magazine.

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The Color Computer Monthly Magazine

# **ON DISK**

October 1986

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

system programs.

This edition of RAINBOW ON DISK includes:

Bombs Away, a graphics game to take you back to the days of Patton.

Halloween Adventure, a ghoulish combination of graphics, treats and plenty of trickery.

Tunnel and Wheel, two programs using PALETTE to create graphics on the

Color Computer 3.

**Graphic Alterations,** use ZOOM to shift, reduce, stretch and enlarge your graphics.

**Portraits in BASIC,** DRAWFACE allows you to create portraits. Great for the kids, but grown-ups will like it, too.

kids, but grown-ups will like it, too.

**CoCoDraw**, a full-blown graphics editor, complete with pull-down menus. **BASIC Training**, simple but effective string manipulations.

**Double Whammy,** another roll of the dice could win it for you, but should you take the chance?

Graphics Quickies, four good BASIC shorts. The Talking Pumpkin, Colors of the Spectrum, The Boogie Box and Space Attack are sure to get you going. Odd Man Out, an educational program teaching the concept of difference.

Education Notes, a BASIC review of adjectives.

The CoCo Scaler, a program to fine tune those graphics images.

Wishing Well, an interesting use of graphics and arcade concepts to teach mathematics.

File Extension Changer, quickly alter your extensions for reloading of graphics files into different graphics editors.

The "flip" side of this month's **RAINBOW ON DISK** includes the files for Dale Puckett's KISSable OS-9. Among these files are a horizontal graphing program and a cursor positioner for the Disto 80-column card.

# BANISOW ON DISK

October 1986

SERIAL #

001922



THE COLOR COMPUTER MONTHLY MAGAZINE

OH DISK

# BANBOW

# November 1986

THE COLOR COMPUTER MONTHLY MAGAZINE

ON

The Color Computer Monthly Magazine

# **ON DISK**

### 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.

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of the disk using Disk BASIC'S DIR command for this occurrence.

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If you are running OS-9, you will find a read.me.first file in the root directory. You should list this file to your screen or printer for information

about the structure of the OS-9 side of the disk.

The Disk BASIC side of the disk is 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.

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Many of these programs require special loading instructions and other information necessary to the proper functioning of the program.

The modifications for CoCocad and CoCoflow, CoCoMOD1, Co-CoMOD2 and CoCoMOD3, are saved on this disk in ASCII format. This is to facilitate use of the Disk BASIC MERGE command to combine the modifications with the main programs. Just load in the file you want to modify, type MERGE"filename" and press ENTER. Then save the modified version to disk.

For complete instructions regarding each of the files on RAINBOW ON DISK, refer to the November 1986 edition of RAINBOW magazine.

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The Color Computer Monthly Magazine

## ON DISK

November 1986

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system programs.

This edition of RAINBOW ON DISK includes:

Treasure Quest Search for gold, but watch out for the traps!

Pizza Party Invite your holiday guests to pick their favorite toppings.

RTTY Transmit and receive text in the Ham bands.

BASIC Training Two programs show you what LEFT\$, RIGHT\$ and MID\$ are all about.

Raiders Dock with the alien ships to recover stolen supplies.

**Shorten** Use this utility to allow the *Banner* program from the May 1986 RAINBOW to run on a disk system. Also included is the *Banner* program with patches already made.

Wishing Well Learn equivalent liquid measures. Do you know how many

quarts are in a gallon?

Remot232 Use a terminal to control your CoCo from a distance.

Funwords Play with words using this educational game.

SMH Add a message editor to your CoBBS system.

Term3 It's a brand-spanking-new terminal program just for your Color Computer 3.

LWRSEDIT Add Lo-Res graphics to your bulletin board system.

McCheckers Play checkers with a friend over the phone!

**Keycad/Keyflow** Use these modifications to add arrow-key control to CoCocad and CoCoflow.

Getput Use these routines for speedier GETs and PUTs in graphics programs.

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

Rainbow Clock A series of modules create a running graphics clock in OS-9 Level II's windowing environment.

The Sieve of Eratosthenes This is a benchmark commonly used to test relative computer speeds.

KISSable OS-9 Included are sysgo, and two cls modules all written in assembly language.

# BANISOW ON DISK

November 1986

SERIAL #

003847



THE COLOR COMPUTER MONTHLY MAGAZINE

# BANBOW

# December 1986

THE COLOR COMPUTER MONTHLY MAGAZINE

The Color Computer Monthly Magazine

## ON DISK

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The Color Computer Monthly Magazine

# **ON DISK**

December 1986

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system programs.

This edition of RAINBOW ON DISK includes:

Greeting A CoCo greeting card in Hi-Res graphics.

Mortar Eliminate the oncoming enemy tank division before it can establish a strategic stronghold.

Hebrew Writer Use your CoCo and ML-92 printer to write notes to your friends in Hebrew.

**Deck the Halls** Liven up the holiday spirit with four-voice music from your Color Computer.

Cardshop Create usable Christmas cards with your CoCo and a printer.

Winter A selection of Hi-Res scenes with accompanying music.

Soltaire A Hi-Res version of the seven-column card game.

**BASIC Training** Learn how to format text presentations on your Color Computer.

**Education Notes** Steve Blyn shows how to convert binary to decimal with the *Binary* quiz program.

Labeler Print out disk labels which include the disk's directory.

Holiday Hearth Warm up to this CoCo program which combines music and graphics for the holiday.

**Trimtree** Decorate your tree with a little help from your Color Computer. **Up on the Rooftop** Help Santa fly his yearly mission.

Wishing Well Fred Scerbo gives us a holiday present of an alterable arcade game.

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

**KISSable OS-9** Included are the new commands del, dname, exit and time. **OS-9 Spooler** Enjoy working with your CoCo while it prints as a background task.

# BAINE ON DISK

DECEMBER 1986

SERIAL#

007350



THE COLOR COMPUTER MONTHLY MAGAZINE

### October 1987

### **RAINBOW**

The Color Computer Monthly Magazine

# **ON DISK**

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:

Horror Have a frightfully good time with this Halloween-oriented quiz.

**Screen Scroller** Use this technique by Bill Bernico to scroll those graphics out of the way.

**The Queens Quarrel** Can you place eight queens on a chess board so none can kill another?

**CoCo 3 Screen Dump** Three screen dump routines to produce excellent copies of your CoCo 3 Mode 1 and 3 graphics.

**Electrifying Graphics** Learn how to make those pictures move.

Graphics Transfer Move your graphics files from disk to tape and vice-versa.

Desktop Publisher Finally, a desktop publishing system for your CoCo. Works

**Desktop Publisher** Finally, a desktop publishing system for your CoCo. Works on the CoCo 1, 2 or 3!

Novices Niche A paletteful of graphics quickies . . . and then some!

**Education Notes** Win big on the gridiron and learn at the same time with *Blitz Quiz*.

**CoCoDraw Update** The complete CoCo*Draw* system with a new and improved joystick handling routine.

Initially 3-D This short routine allows 3-D initials on the Hi-Res screen.

CoCo Talks Back Let your CoCo, along with a Speech/Sound Pak, help you debug those long listings.

**Animation Film Festival** Discover the power of multi-screen animation on your CoCo's Lo-Res screen.

**Family Tree Part II** The final listings for this CoCo 3-based genealogy program. **Wishing Well** See if your language skills [is, are, were, be] current with Conjugate Instructor.

The OS-9 files on the "flip" side of this month's RAINBOW ON DISK include: **Compressed Files** *Unpress*, by Peter Dibble, allows you to decompress files after using last month's *Compress* utility.

**KISSable OS-9** Dale Puckett offers *KISSDraw2*, a continuation of his coverage of graphics on the CoCo 3 under OS-9 Level II.



The Color Computer Monthly Magazine

### **ON DISK**

### 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.

This month's RAINBOW ON DISK is formatted in such a way that programs for Disk BASIC are on both sides of the disk. The flip side of the disk has been "partitioned" and does hold six Disk BASIC files. You may copy these files to another disk manually or back up the entire flip side of the disk.

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. You are able to back up the OS-9 formatted side of the disk under Disk BASIC. For the protection of the RAINBOW ON DISK master, the disk does not have write-protect 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.

Since this month's RAINBOW ON DISK offers BASIC09 programs, the SOURCE directory will be the only one found on the disk. There is no CMDS directory on this month's RAINBOW ON DISK. To use this month's programs, first boot OS-9 and execute BASIC09. Then, use the chd command to make the RAINBOW ON DISK SOURCE directory your current data directory and load the programs into the BASIC09 workspace.

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 chdzd0 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 chdzd1 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 October 1987 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

F	ront Side	Bac	k Side
Page	Filename	Disk B	ASIC Files
ОСТ	MENU	Page	Filename
022	HORROR		
027	SCROLL	OCT	MENU
029	QUEENS	145	FAMILY
032	SCRNDMP	156	CHART
036	SCRNDMPS	160	VERBTEST
038	LP78DMPS		
039	TESTSCRN		
046	ENERGY	OS-	9 Files
050	GRAFTRAN	read.me.f	irst
063	DESKTOPL		
068	DESKTOPH	00	UDCE
072	GENFONT1	50	URCE
075	GENFONT2		
078	FUNFACE	Page	Filename
079	MARTIAN	•	
080	COCOART	164	Unpress
081	MIRORPIX	177	KISSDraw2
082	P178&GL		
082	WINDCHIL		
083	FOOTBALL		
095	CCBLITZ		
099	MENUGEN		
099	COCODRAW		
103	3DLETTER		
107	READPROG		
118	ANIMATE		
124	PICTBOOK		

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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. Box 385, Prospect, KY 40059.

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Specifically, this means that the original disk/tape itself may indeed be kept in a club library for use by members. However, a group purchase does not entitle club members, individually or as a group, to copy that disk/tape.

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### **April 1988**

## **RAINBOW**

The Color Computer Monthly Magazine

## **ON DISK**

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

This edition of RAINBOW ON DISK includes:

**Child Protect** Speed up medical attention when you are away from your child with this customized authorization form.

Recipe Filer Use this friendly database to organize those family recipes.

Financial Conversions A tool box to help manage your finances.

**Home Inventory** This program helps keep track of all those household valuables.

Color Correspondent A mini word processor for your letter-writing needs.

**Auto Maintenance** Keep track of maintenance schedules for up to five vehicles.

**Education Notes** Preview the presidential election with this poll program from Steve Blyn.

Novices Niche Five fun and helpful quickies to get you started.

Kingmaker Promote your candidate to kingship as master of the guild.

Easy As Pie Here's a little help for BASIC programmers in the form of a utility program.

**Budget Master** Let the Home Financial Analyst help organize income and expenses.

Color Mixer This CoCo 3 utility from H. Allen Curtis helps choose colors for your next BASIC creation.

Wishing Well CoCo 3 "fixes" for Wishing Well favorites from the past.

**Barden's Buffer** Discover the world of Hershey characters with Hershey Utility and Hershey Font Driver.

The OS-9 files on the "flip" side of this month's rainbow on disk include:

**KISSable OS-9** Finally, a driver/descriptor pair for the WordPak RS.



### The Color Computer Monthly Magazine

### **ON DISK**

### 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.

This month's RAINBOW ON DISK is formatted in such a way that programs for Disk BASIC are on both sides of the disk. The flip side of the disk has been "partitioned" and does hold 11 Disk BASIC files. You may copy these files to another disk manually or back up the entire flip side of the disk.

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. You are able to back up the OS-9 formatted side of the disk under Disk BASIC. For the protection of the RAINBOW ON DISK master, the disk does not have write-protect 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-9system disk from Drive 0 and replace it with the OS-9 side of RAINBOW ON DISK. Then type chd<ado 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<ad a land 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 /dl/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 April 1988 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side		Back Side		
Page	Filename	Disk BASIC Files		
APR	MENU	Page	Filename	
025	MED FORM	APR	MENU	
032	RECIPES	126	COLORMIX	
036	FINANCE	148	#BLOOD	
044	INVNTORY	148	#HEART	
049	LETRRITR	148	#DRIVE2	
060	MAIN	148	#COCOKEYS	
068	EXPNS	148	#SPELLKEY	
069	REM	148	COPIER	
070	ELECTION	179	<b>FONTUTIL</b>	
072	BRU	184	HFDRIVER	
073	ENCRYPT	189	EXAMPLE	
074	SHOOTEM			
074 075	CALENDAR QUILT	OS-	-9 Files	
073	KINGBOOT	read.me.fir	st	
090	KING	С	MDS	
101	UTILITY1	167	wpdrv.dr	
116	BUDGET	168	wp.dd	
120	REPORT	169	wecho.dd	
		SOURCE		
		166	CO80.patch	
		167	wpdrv.src	
		168	wp.src	
		169	wecho.src	

# Indicates "Wishing Well" fix files; see Page 146.

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

This edition of RAINBOW ON DISK includes:

**Strata** Revisit the past with this fast-paced, arcade-style "pong" spinoff.

One Good Turn A two-player strategy game to really flip you out.

Ye Olde Font See how easy it is to use different fonts in your own creations. CoCo 3 Color Dump Use this complete package to send colorful CoCo 3 graphics to the CGP-220 Inkjet printer.

**Sign In Please** Let CoCo sign it for you; a great way to personalize your work. **PMODE Polychrome** Send those PMODE3 and 4 screens to the CGP-220 efficiently.

Wishing Well Jump into the jumble and try to decode these sentence puzzles. Education Notes Study Nyms, a review of synonyms, homonyms and antonyms. Novices Niche A fine collection of shorties for beginners and advanced users alike.

**Printing in Two Columns** Make eye-catching newsletters with this two-column formatter.

**In and Out With Boole** Test your abilities with binary addition, subtraction and multiplication.

**LLISTing Formatter L**et *BestList* show its stuff the next time you need a hard copy. **Poster Printer** Print those garage sale (and many other) signs with this BASIC program designed for the DMP-130.

**Alternate Fonts for PMODE4** Use any of the many new CoCo 3 fonts on the PMDDE4 screen. Works with CoCo 1, 2 and 3!

Barden's Buffer Take a venture into the world of palindromes and anagrams.

The "flip" side of this month's rainbow on disk includes:

**KISSable OS-9** Use *DefsDemo* to define window data types and Cmdgen to generate OS-9 modules that execute existing programs.



### **May 1988**

### **RAINBOW**

The Color Computer Monthly Magazine

## **ON DISK**

### 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. You are able to back up the OS-9 formatted side of the disk under Disk BASIC. For the protection of the RAINBOW ON DISK master, the disk does not have write-protect 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 OM2 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 LDAD 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 SDURCE. It also contains a file, read.me.first, which explains the division of the two directories. The CMDS directory contains executable programs and the SDURCE 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 SDURCE 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-9system 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 /dl/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 May 1988 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

F	ront Side	Вас	k Side
Page	Filename	os-	9 Files
MAY	MENU	read.me.f	first
020	STRATA	C	MDS
031	FLIPIT	Page	Filename
037	SCRNFONT	•	
045	COLORS	188	Cmdgen
048	HRSAVE	so	URCE
048	HRLOAD	185	DefsDemo
048	CGPPRINT	188	Cmdgen.source
048	COLORPIE	189	Makecmdgen
054	SIGNATUR		-
060	*IMAGE_		
076	JUMBLE		
088	NYMS		
090	NO SMOKE		
091	CANVAS		
091	TICKET		
092	GRAFCODE		
092	BIGDUMP		
093	PAL32		
093	CENTERER		
094	BLOCKOUT		
096	LETTER		
098	PERSLOGO		
102	BOOLEAN		
107	BESTLIST		
120	POSTRPTR		
156	FONTDEMO		
156	FONTPOKE		
157	ROMRAM		
176	PALINDRM		
176	LETTERS		
176	PERMS		

<sup>\*</sup> Indicates a machine language program.

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

This edition of RAINBOW ON DISK includes:

Playin' the Blues Mellow out with the sounds of CoCo after a hard day.

College Costs Prepare a financial plan for when your children enter college. CoCo 3 Auto-Boot With Auto3 tell your CoCo 3 to lie quietly while you are gone and "wake up" just before you return.

CoCo Goes Country Discover the sounds of Nashville with Rockytop.

Color Composer A music "processor" to help you create and edit your own masterpieces.

Print That Tune Print a custom PLAY statement for the songs entered.

**Graphing Great Guitars** A real collector's item for guitar buffs from Bill Bernico.

**Tank Command** Defend your forces in this fast-paced, arcade-style action game. **Novices Niche** More than a handful of goodies to start computing on the right key.

**Education Notes** How well do you know THE RAINBOW? Find out with Magparts by Steve Blyn.

Blast From the Past A jukebox of ragtime selections for your enjoyment.

**SuperPlay** Warm up and smooth out the sound offered by CoCo's PLAY command.

**Exercise Your Drives** Discover the workings of a disk system by putting the floppy controller through its paces.

**Chord Producer** Learn those chords and their piano keyboard placement with *Chords*.

**Wishing Well** Take aim on direct and indirect objects with Fred Scerbo's *Sentence*.

**CoCo 3 Potpourri** Several mods and patches to enhance your CoCo 3 computing. **Color Catalyst** Customize BASIC to suit your personal taste by changing commands, messages and more.

The OS-9 programs on the "flip" side of this month's RAINBOW ON DISK include: **Help Is on the Way** A BASIC09 utility from Stephen B. Goldberg to allow the addition of help information for Level I, Version 2.00's help command.

**KISSable OS-9** Learn about C/BASIC09 data structures for *Multi-Vue* with *MVShell*. Also, use *Skipmuf*, a PASCAL program, to calculate the radio frequencies you can use to reach any point on Earth at a particular time.



### June 1988

### **RAINBOW**

The Color Computer Monthly Magazine

# **ON DISK**

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This month's RAINBOW ON DISK is formatted in such a way that programs for Disk BASIC are on both sides of the disk. The flip side of the disk has been "partitioned" and does hold 10 Disk BASIC files. You may copy these files to another disk manually or back up the entire flip side of the disk.

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. You are able to back up the OS-9 formatted side of the disk under Disk BASIC. For the protection of the RAINBOW ON DISK master, the disk does not have write-protect 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 SDURCE. It also contains a file, read.me.first, which explains the division of the two directories. The CMDS directory contains executable programs and the SDURCE directory contains the ASCII source code for these programs. BASICO9 programs will only be offered in source form so they will only be found in the SDURCE directory.

Since this month's RAINBOW ON DISK offers BASIC09 programs, the SDURCE directory will be the only one found on the disk. There is no CMDS directory on this month's RAINBOW ON DISK. To use this month's programs, first boot OS-9 and execute BASIC09. Then, use the chd command to make the RAINBOW ON DISK SDURCE directory your current data directory and load the programs into the BASIC09 workspace.

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 copu 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: copu /dl/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 June 1988 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

F	ront Side	Bac	k Side
Page	Filename	Disk B	ASIC Files
JUN	MENU	Page	Filename
024	COCOBLUZ	JUN	MENU
028	COLLEGE	160	CC3PATCH
032	AUTO3	161	TUNNLMOD
038	ROCKYTOP	171	RAM
046	SONGWRTR	171	CATALYST
053	PRINTUNE	176	DISK.BAS
057	GUITARS	176	CATLYST3
064	BLITZ1	177	DISK.3
071	BLITZ2	177	LCPATCH2
076	BLITZ3	177	LCPATCH3
078	PITCHER	os-	9 Files
079 079	99BEERS EXPLORE2	read.me.firs	st .
079	THECAVE		URCE
080	MUSICPRO		
081	LOTTO48	014	Helpmate
082	COLLECT	180	MVShell
082	ASCIIREF	183	Skipmuf
086	MAGPARTS		
096	JUKEBOX		
105	SUPRPLAY		
103	WAVEDIT		
111	FDCAID		
141	CHORDS		
155	SENTENCE		
.00	OL. T. LITOL		

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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. Box 385, Prospect, KY 40059

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The Color Computer Monthly Magazine

## ON DISK

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

This edition of RAINBOW ON DISK includes:

Seawar Try your hand at sinking the hidden battleships.

It's Your Move Chess moves the strategy from the game board to the CoCo's screen.

**File Compare** Check those disks for duplicates with this file comparison utility. **Bingo** An old favorite with some added bells and whistles.

Child's Play Use the luck of the die to assemble your bug before your opponent. Italics-105 Create an italics font for your Radio Shack DMP-105 printer.

**Tut's Tomb** Finish the battle with parts 2 and 3 of this fast-paced arcade game. **Novices Niche** Here are five quickies to get you going.

Education Notes Learn to add up costs with this newspaper subscriber list.

The "Hit" List Keep track of the body count in role-playing games such as T.A.G.

 $\textbf{Wishing Well} \ Learn \ to \ recognize \ opposites \ with \ this \ graphics-based \ teacher.$ 

**ML-Data** A routine to convert a machine language program into BASIC data statements.

Little Graphics Library Learn to use programming constructs in machine language graphics routines.

ML Made BASIC Part 2 of this beginner/intermediate machine language series. Working Together Two programs presented by Don Hutchison help ease tape file transfers from Delphi.

**Barden's Buffer** Find out which areas of your BASIC programs need help in becoming more efficient. An excellent way to "clean up" your act.

The OS-9 programs on the "flip" side of this month's RAINBOW ON DISK include: **KISSable OS-9** Add *WindInt* functions to BASIC09 with *Gfx3*.



#### August 1988

## **RAINBOW**

The Color Computer Monthly Magazine

## **ON DISK**

#### 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.

This month's RAINBOW ON DISK is formatted in such a way that programs for Disk BASIC are on both sides of the disk. The flip side of the disk has been "partitioned" and does hold 13 Disk BASIC files. You may copy these files to another disk manually or back up the entire flip side of the disk.

Before you run any of the programson 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. You are able to back up the OS-9 formatted side of the disk under Disk BASIC. For the protection of the RAINBOW ON DISK master, the disk does not have write-protect 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.

Since this month's RAINBOW ON DISK offers BASIC09 programs, the SQURCE directory will be the only one found on the disk. There is no CMDS directory on this month's RAINBOW ON DISK. To use this month's programs, first boot OS-9 and execute BASIC09. Then, use the chid command to make the RAINBOW ON DISK SQURCE directory your current data directory and load the programs into the BASIC09 workspace.

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 /dl/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 1988 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

	Front Side	Bac	k Side
Page	Filename	Disk B	ASIC Files
	MENU	Page	Filename
024	SEAWAR		MENU
032	CHESS	106	*PROG1
037	*FILECOMP	106	*PROG2
040	BINGOTLK	107	*PROG3
045	BUGGIE	107	*PROG4
052	ITALICS	140	FINANBAS
060	2PART1	140	*FINANBIN
064	2PART2	159	TAPCNV
068	3PART1	160	BASFIX
073	3PART2	178	PRNTLINE
060	*TUT1	178	LINETABL
060	*TUT2	178	ANALYZE
060	*TUT3	179	TIMEFIND
076	IMMORTAL	OS-	-9 Files
077	JOYZAP	read.me.fir	st
078	EZSHOOT	90	URCE
078	FLIGHT		
079	MEMORY	Page	Filename
080	NEWSCOST	187	Gfx3
088	KILLER		
094	OPOSITE1		
101	MLDATA		

<sup>\*</sup> Indicates a machine language program.

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The Color Computer Monthly Magazine

## ON DISK

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This edition of RAINBOW ON DISK includes:

**Used Cars** Make the used car choice easier with a little assistance from CoCo. **Mass Disk Formatter** Increase your productivity with this utility to help cut down on the "housekeeping."

**The Big Bad Wolf** CoCo 3 teams up with a popular tale to put a new twist in learning the ABCs.

Seating Chart Teachers, keep track of seating assignments.

Long Division A unique math drill that instructs the student each step of the way.

**States and Capitals** Help students remember their geography lessons using this CoCo 3 game as a tool.

Clue Me In A one-word Charades game for people of all ages.

Novices Niche A grab bag of goodies for your software collection.

Wishing Well Match opposites with this Concentration-like game.

ML Made BASIC Get into "the dumps" with this homebrew screen print routine.

 $\label{eq:Desktop Publisher Reprise} \begin{picture}{ll} \textbf{Publisher Reprise} & \textbf{Add word processor input and several other features} \\ \textbf{to this system by H. Allen Curtis.} \end{picture}$ 

**On VCR Time** Calculate remaining recording time on that collection of half-filled video tapes.

**Education Notes** Learn cross-referencing skills with this short program from Steve Blyn.



### September 1988

## **RAINBOW**

The Color Computer Monthly Magazine

## ON DISK

#### Instructions for Use

This disk is a "floppy," formatted under Disk Extended BASIC. Unlike previous RAINBOW ON DISKs, this month's issue of THE RAINBOW and RAINBOW ON DISK do not contain any OS-9 programs.

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 the disk, giving you a working copy. For the protection of the RAINBOW ON DISK master, the disk does not have write-protect 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 LDAD and RUN the program as you normally would from Disk BASIC, bypassing the menu.

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 September 1988 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Page	Filename	Page	Filename
SEP	MENU	076	CIDER
020	USEDCARS	076	ASCII3
030	FORMATTR	093	MATCH
036	BADWOLF	099	DUMPBAS
046	SEATCHRT	100	*DUMPBIN
054	DIVISION	106	GENMENU
061	STATES	107	PATCHWPL
067	CLUEFILE	110	PATCHWPH
068	CLUEWORD	112	CONVERTL
070	WORLD	114	CONVERTH
071	ADDBLOKS	116	MONROE
071	ROMANMRL	124	VIDTIME
072	FLEXQUIZ	124	LEASTQ
074	PAYASO	136	REFERNCE

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<sup>\*</sup> Indicates a machine language program.

The Color Computer Monthly Magazine

## ON DISK

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

This edition of RAINBOW ON DISK includes:

**Roommate** A program to help roommates organize expenses in a fair, precise manner.

**Super Stamper** Two new PMODE graphics commands for zoom, stretch and rotate effects.

Font Master Replace the CoCo 3's built-in HPRINT font with one of your design.

ML Made BASIC Delve into the world of machine language graphics.

**New Colors** Add more colors to HSCREEN4 by combining the colors you already have.

Keyboard Power Add single-key control and function keys to your CoCo.

Novices Niche Five quickies to teach, taunt and delight you.

**Wishing Well** Opposite Concepts and Match Game of Opposites revamped with more data.

Warped Animation Create whirlpools and waves with Gravitational Grid.

**Barden's Buffer** Continue the trek to assembly language with a little help from Bill Barden.

The OS-9 programs on the "flip" side of this month's RAINBOW ON DISK include: **KISSable OS-9** Use *FMenu* to find what's on those disks when you need it most. Also, updates for *MVShell* and *Gfx3*. Finally, use *DiskFix* and *FormatFix* from Steve Goldberg to take full advantage of those double-sided drives.



#### October 1988

## **RAINBOW**

The Color Computer Monthly Magazine

## ON DISK

#### 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. You are able to back up the OS-9 formatted side of the disk under Disk BASIC. For the protection of the RAINBOW ON DISK master, the disk does not have write-protect 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.

Since this month's RAINBOW ON DISK offers BASIC09 programs, the SQURCE directory will be the only one found on the disk. There is no CMDS directory on this month's RAINBOW ON DISK. To use this month's programs, first boot OS-9 and execute BASIC09. Then, use the chid command to make the RAINBOW ON DISK SQURCE directory your current data directory and load the programs into the BASIC09 workspace.

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 SQURCE 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 /dl/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 October 1988 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

F	ront Side	Bac	k Side
Page	Filename	os-	9 Files
OCT	MENU	read.me.firs	st
016 032	ROOMMATE SUPRSTMP	so	URCE
032	STMPDEMO	Page	Filename
042	FONTMSTR -	152	FMenu
042	*CURSFONT	156	Mod1
042	*BOLDFONT	156	Mod2
050	*PAGER	157	DiskFix
052	NUCOLORS	157	FormatFix
054	DEMO		
075	*KEYPOWER		
086	SPOOK		
087	EYECATCH		
087	COPYPIX		
088	COCOPLUS		
089	SLOTS		
091	OPOSITE2		
091	MATCH2		
104	GRAVGRID		
142	*PONGBIN		
142	PONGBAS		

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The Color Computer Monthly Magazine

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

This edition of RAINBOW ON DISK includes:

A CoBBS Update These modified CDBBS/SYS and USER/SYS files allow CoBBS to be compatible with the CoCo 3.

Education Notes Exercise your reading comprehension and retention.

**Stock Market** Take your chances on Wall Street with this high-level game for the CoCo 1, 2 or 3.

**Election '88** Keep track of the upcoming election results as they are announced. See if your predictions and wishes come true.

ML Made BASIC Learn to access single PMDDE points using machine language. Novices Niche Six quickies to whet your computing appetite.

**Add Xmodem to CoBBS** Use these routines to let your CoBBS system upload and download via the Xmodem protocol.

U.S. Presidents Add a little presidential history to your list of U.S. trivia.

A Remote Update Use this updated terminal driver, and make your CoCo 3 quite a host.

**Wishing Well** Continue the trek into the world of matches and opposites with *Pictures*, by Fred Scerbo.

**Barden's Buffer** A sort is a sort, of course, of course . . . Now you can learn how and where to use them.

The "flip" side of this month's rainbow on disk includes:

**KISSable OS-9** More routines for *Multi-Vue* users, as well as *Strip*, a utility from Stephen Goldberg to help conserve disk space.

## DECB

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CLKSPD	INSTALLATION AUTOMATION AND MORE	NOV 1988	176
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## **OS-9**

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#### December 1988

## **RAINBOW**

The Color Computer Monthly Magazine

## **ON DISK**

#### 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. You are able to back up the OS-9 formatted side of the disk under Disk BASIC. For the protection of the RAINBOW ON DISK master, the disk does not have write-protect 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 /dl/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 December 1988 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side Disk BASIC Files		Back Side Disk BASIC Files		
Page	Filename	Page	Filename	
DEC	MENU	DEC	MENU	
024	TREEPUZZ	089	YULELOG	
030	HIPMAS	090	TURKISH	
038	SOLTAIR3	090	CARDLIST	
046	ROMRAM	091	LOCKOUT	
046	SETHELP	092	NEWSREEL	
047	SPELLER	092	CARDTRIK	
049	TAKETEST	093	KEYBOARD	
058	*PROS	101	DISKOFF#3	
060	PROS1	102	ALARM	
072	PROS2	105	BASLINE	
077	SCR1N	105	*BINLINE	
084	SCRN2	109	*SCRNSAVE	
880	MAKEPROS	113	SINGCARD SCRLDEMO	
		118 120	FASTSCRL	
		120 152	BRAINSTM	
		170	PENTPUZL	
			S-9 Files	
		read.me.f	irst	
			CMDS	
		Page	Filename	
	s a machine language	160	Dmode	
program		s	OURCE	
		Page	Filename	
		160	Dmode	
		163	MakeDmode	
		184	Xcodes.CC3	

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The Color Computer Monthly Magazine

## **ON DISK**

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This edition of RAINBOW ON DISK includes:

**The Flip Side** Join the world of publishing — print six-page pamphlets using one sheet of paper.

Building Blocks Create colorful patchwork pictures using the CoCo 1, 2 or 3.

Piecharts Spice up your next presentation with this CoCo 3 application.

Novices Niche An extra-large assortment of shorties to start the year off right.

**RGB Demonstration** Discover how the CoCo 3 mixes red, green and blue to form its 64-color palette.

Education Notes Learn to convert between inches, feet and yards.

Wishing Well Make comparisons easy with this study of analogies.

**Programming Contest Winner** Here is the winning entry in Bill Bernico's "addon" programming contest.

ML Made BASIC Part Seven shows how to create circles and arcs easily, using assembly language.

**Secret Codes** Fulfill your clandestine desires with this cipher program.

**RAM Disk** Utilize all of your CoCo 3's memory by building a RAM disk in the upper 64K.

**Barden's Buffer** Enter the world of communications with this Morse code tutor from Bill Barden.



#### January 1989

## RAINBOW

The Color Computer Monthly Magazine

## **ON DISK**

#### Instructions for Use

Since there are no OS-9 programs published in THE RAINBOW this month, this disk is a single-sided "floppy," formatted under Disk Extended BASIC.

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

The disk is 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 LDADM 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 (Out of Memory) 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.

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 1989 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience).

Page	Filename	Page	Filename
JAN	MENU	62	WORDCNT
24	BOOKLET	63	DOWNHILL
30	BLOCKS3	63	COCOPONG
31	BLOCKS2	64	TELE-DIR
28	*SAMPLE1	67	RGBDEMO
28	*SAMPLE2	72	CONVERT
46	PIECHART	81	ANALOGY
58	MANDO	88	RINGBELL
59	BALLDEMO	91	*CIRCLES
60	TAFFYBAL	92	*ARCS
60	DOODLER3	105	CIPHER
61	PSYCHO	112	RAMDISK
61	PROGQUIZ	113	COPY
62	CLS255	150	MORSE

<sup>\*</sup> Indicates a machine language program.

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The Color Computer Monthly Magazine

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

This edition of RAINBOW ON DISK includes:

**Tangled Tiles** See if you can unscramble the four-tiered puzzle in the challenging game of *Blue Void*.

**Database Routines** Here are four tutorial examples from the first part of our series on building your own database.

A Toad's Life Hop the light fantastic and see if you can keep your toad alive.

One Touch Calculator Here's a joystick/puff switch-controlled calculator designed especially for the disabled.

**Hands-Free** ROM and RAM versions of the driver software for Dennis Weide's home control system.

**The Patch Continues** Use this patch with *Super Patched EDTASM+* to allow 80-columns on the CoCo 3.

Wishing Well Use Count On Me to teach fundamental math skills to new students.

Novices Niche Eight quick and easy shorties to get you started.

ML Made BASIC Let Shifts help you learn about your CoCo's multiplication tables.

 $\begin{tabular}{ll} \textbf{Education Notes} S teve \ B \ lynoffers \ a \ tach is to scope to help sharpen \ memorization \ skills. \end{tabular}$ 

Daily Planner Use this program to organize your busy schedule.

**House Hunting** Make smart decisions by checking it all out before you buy that new dream house.

**Barden's Buffer** Discover the life of the common worm (and also how your CoCo draws) with *Worm Driver* from Bill Barden.

The "flip" side of this month's rainbow on disk includes:

**Set Date** Use this handy utility to enter the system date in MM/DD/YY format. **KISSable OS-9** Dale Puckett's offerings this month include Charter and Translate. Use these with the ScratchPad program from The Complete Rainbow Guide to OS-9 Level II to print out your notes.



#### February 1989

## RAINBOW

The Color Computer Monthly Magazine

## ON DISK

#### Instructions for Use

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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.

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## How Do I Get to the OS-9 Programs?

The OS-9 side of RAINBOW ON DISK contains two directories: CMDS and SDURCE. It also contains a file, read.me.first, which explains the division of the two directories. The CMDS directory contains executable programs and the SDURCE 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 SDURCE 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<ahdebedochdolor: The type chd<ahdebedochdolor: The type chd<ahdebedochdolor: The type chd</a> and put the RAINBOW ON DISK in Drive 1. Then type chd<ahdebedochdolor: The type chd<ahdebedochdolor: The type chd<ahdebedochdolor: The type chd<ahdebedochdolor: The type chd</a> 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 SDURCE 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 /dl/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 February 1989 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

F	ront Side	090	HANOI
Disk BASIC Files		091	HEADSUP
Page	Filename	091	CLRBLOKS
Page FEB 030 040 040 042 044 052 072 076 081 081 080 083 087	Filename MENU BLUEVOID SUBDEMO REALMENU MARBLE1 MARBLE2 TOADER CALCLATR *COEPPRAM *COEPPROM EDPATCH EDLOADER *SPATCH COUNTME CHEKBOOK	091 098 105 108 114 116 121 150 151 * Indicates Ba OS read.me.fii	CLRBLOKS *SHIFTS TACHISTO DAYPLAN DRIVEBY HOUSE LOANDATA WORMDRVR WORMSMPL s a machine language program. ck Side i-9 Files rst
088 088	ADLABELS CASSLELE	Page	Filename
088	CASSLBLR	142	SetDate
089 089	GROCHART SIMON	157 157	Charter Translate
000	GIMICIA	137	Hansiale

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The Color Computer Monthly Magazine

## ON DISK

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

This edition of RAINBOW ON DISK includes:

**Education Notes** Share feelings about your favorite pet using *PetStory*, a fun language arts program.

**ML Made BASIC** Start experimenting with musical creations written in machine language.

**Teed Off** Take a break with this fun, and sometimes frustrating, golf game for CoCo 1, 2 and 3.

Novices Niche Seven shorties ranging from entertaining routines to utilities.

Wishing Well QLator, a CoCo calculator with "keypad" from Fred Scerbo.

**Database Design** This second part in the database tutorial series covers data arrangement and the secrets to using the disk for storage files.

**CoCo Desktop** Create your own high-powered application with this Disk BASIC window environment skeleton.

**BASICally Speaking** A core routine for slot-machine programming for the CoCo 3.

The OS-9 programs on the "flip" side of this month's RAINBOW ON DISK include: **KISSable OS-9** *TrakSat*, a satellite tracking program for Hams and non-Hams alike. Also, this month gives us *Echo*, a modified echo command from Steve Goldberg. This utility now allows options for clearing the screen, embedded linefeeds and more.



#### March 1989

## **RAINBOW**

The Color Computer Monthly Magazine

## ON DISK

#### Instructions for Use

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- 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 SDURCE 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 /dl/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 March 1989 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side		Ва	ck Side
Disk	Disk BASIC Files		-9 Files
Page	Filename	read.me.fi	rst
MAR	MENU	CMD	S Directory
028 032 060	PETSTORY *MLNOTES GOLFER	153 SOURC	echo CE Directory
078	BLINK	Page	Filename
079 079 080 080 081 082 084 091 091 091 092	COCOLEID ASCICALC 5-COLDIR ASCSERCH FRACTAL WILFLOAT QLATOR SEPARATE RITEREAD TIMER CREATE ADDRECRD	138 139 139 153 153	Satellite_dat Station_dat TrakSat echo.source MakeEcho
105 130	DESKTOP SLOTCORE		

<sup>\*</sup> Indicates a machine language program.

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The Color Computer Monthly Magazine

## ON DISK

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This edition of BAINBOW ON DISK includes:

Lil' Ole Interest Monitor Use this CoCo 3 program to help track interest earnings.

**Invoice Innovation** This office helper will print customized invoices and shipping labels on demand.

**Call Memo** Oi ganize the way you take and leave phone messages in your home or office.

BASIC Training Delve into graphics animation with Joseph Kolar's BigBird.

**ML Made BASIC** Discover graphics animation by looking at point rotation in machine language.

**Novices Niche** Six shorties ranging from business to graphics to help get you started.

**Wishing Well** Just how does time add up? Find out with *Time Card* by Fred Scerbo.

**Education Notes** Learn (and teach) how to move around the dictionary.

**Color Coordinator** Help children develop a sense of color coordination with this CoCo 3 program.

Credit Lines Keep track of credit card transactions and balances for up to ten accounts.

**CoCo Tour** Add that extra splash to your programs with this colorful border creation utility.

**Decisions** Let CoCo help you make those tough decisions by organizing and weighing relevant factors.



### **April 1989**

## **RAINBOW**

The Color Computer Monthly Magazine

## ON DISK

#### Instructions for Use

Since there are no OS-9 programs published in THE RAINBOW this month, this disk is a single-sided "floppy" formatted under Disk Extended BASIC.

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 this disk, giving you a working copy. For the protection of the RAINBOW ON DISK master, the disk does not have write-protect 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 LDAD and RUN the program as you normally would from Disk BASIC, bypassing the menu.

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 April 1989 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

## Front Side Disk BASIC Files

Page	Filename
APR	MENU
022	INTEREST
046	OFFICE
053	CALLMEMO
067	BIGBIRD
075	DEMO
075	DRIVER
076	*ROTATION
079	CC3GRAPH
080	EZLABELS
081	STARVIEW
082	ANIMATOR
082	WHENRAIN
083	BIRDSEED
090	TIMECARD
099	DICTNARY
102	CRDINATE
105	CREDIT
113	COCOTOUR
114	CCTDEMO
119	AHP

<sup>\*</sup> Indicates a machine language program.

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The Color Computer Monthly Magazine

## **ON DISK**

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

This edition of RAINBOW ON DISK includes:

**Text for Graphics** Add text to your favorite graphics creations.

Lunar Lander As remote pilot, land a company's expensive cargo at designated lunar sites.

CoCo Derby A day at the CoCo Raceway is as close as your keyboard.

Having a Party? Create invitations for your next gathering in any style you want.

**Education Notes** Math class will be a breeze after using this fraction tutor.

Font Setter Say goodbye to those CHR\$ code blues. Set DMP-130 fonts simply.

Novices Niche Seven shorties to entertain and help you learn BASIC programming.

ML Made BASIC Part XI explains the details of 3-D rotation.

Printer Spooler No more waiting for your printer to finish.

**BASIC Training** More pointers for some homegrown animation projects.

Wishing Well Here is a program to familiarize children with the calendar.

Convert Convert those PRINT statements to PRINT#-2 statements.

**Desktop** High-density printer enhancements for the shoestring desktop publisher.

The OS-9 programs on the "flip" side of this month's RAINBOW ON DISK include: **Chown** Change ownership of files allowing access for your users.

**BASIC09 Tool** A system of procedures to show how to use Get/Put buffers for parameter passing between concurrent processes.



## May 1989

## **RAINBOW**

The Color Computer Monthly Magazine

## ON DISK

#### 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-protect 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 LDAD 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 /dl/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 May 1989 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

F	ront Side	Ва	ck Side
Disk BASIC Files		os	-9 Files
Page	Filename	read.me.fi	rst
MAY	MENU	CMDS	Directory
021	GRAFTEXT	Page	Filename
032 035	LANDERGG	144	Chown
035	LANDER *LANDER1	SOURC	E Directory
032	*LANDER1	Page	Filename
043	DERBY	140	Core
048	INVITE	141	Start
052	INVIFORM	144	Chown.c
056	FRACTION		
072	FONTSETR		
074	DUMP132		
075	SOUNDOFF		
075	BEAM3D		
076	HOTCOLD		
076	MATHDRIL		
077	CHORES		
078 082	NOTECARD *ROTATE3D		
085	DRIVER		
085	ALTROTAT		
087	SPOOLBAS		
087	*SPOOLBIN		
090	FLIGHTS1		
091	FLIGHTS2		
091	FLIGHTS3		
092	CALENDAR		
098	CONVERT		
104	DRIVERLT		
107 109	DRIVERLE LALTER		
109	LALTER		
109	LALTERD		
109	LALTERDE		
.00	Z. Z. ZIIDZ		

<sup>\*</sup> Indicates a machine language program.

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The Color Computer Monthly Magazine

## **ON DISK**

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

This edition of RAINBOW ON DISK includes:

Electro Dominoes These dominoes never fall accidentally.

Self Portrait A tribute to the CoCo 2.

The CoCo Fortune Teller It's time to gaze into the crystal ball.

Castle Zhagwhar Journey deep into the castle to find and kill the evil wizard.

Now You See It . . . Five optical illusions to display on your CoCo 3 monitor.

CoCo In 3-D Put a new twist in computer graphics.

**The CoCo Quiz Master** Astound your non-computer friends by making the CoCo a "know it all."

**Storm** Brew up a rainy day on your CoCo.

**EZRun** Run BASIC programs by typing just their filenames.

ML Made BASIC Create six voice music.

**Education Notes** Combine target practice with math skills.

**BASIC Training** Developing a PRINT @ screen utility program.

Wishing Well Teaching children the days of the week.

**Novices Niche** Eight shorties to entertain and help you learn BASIC programming.

**Economy Printer Buffer** Free up your computer while printing.

Fun Stats A program for keeping softball statistics.

Wildcards Enhance the directory command for those hard-to-find disk files.

Barden's Buffer Perplexing puzzles to ponder.

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

PR.B09 A BASIC09 utility for print formatting.

**KISSable OS-9** Five utilities to help find files that have become buried in an OS-9 directory.



#### **June 1989**

# RAINBOW The Color Computer Monthly Magazine ON DISK

#### 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.

This month's RAINBOW ON DISK is formatted in such a way that programs for Disk BASIC are on both sides of the disk. The flip side of the disk has been "partitioned" and does hold 16 Disk BASIC files. You may copy these files to another disk manually or backup the entire flip side of the disk.

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-protect 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 LDAD 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 SDURCE. It also contains a file, read.me.first, which explains the division of the two directories. The CMDS directory contains executable programs and the SDURCE 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 SDURCE 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 SDURCE 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 /dl/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 June 1989 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side Disk BASIC Files			Back Side Disk BASIC Files		
Page	Filename	Page -	Filename		
JUNE	MENU	JUNE	MENU		
020	DOMINOES	120	GMFLCHK		
020	DOMINO.SAM	121	CLRRSTR		
024	PORTRAIT	121	COPYFILE		
030	FORTUNE	122	*WILDBIN		
042	ZHAGWHAR	124	WILDBAS		
049	ILLUSION	124	ALLRAM		
053	3DGRAPHX	146	PUZZLE1		
058	COCOQUIZ	146	PUZZLE2		
060	STORM	147	PUZZLE3		
065	EZRUN	147	PUZZLE4		
068	*6VOICES	147	PUZZLE5		
076	MATHSHOT	148	PUZZLE6A		
082	BOXCAR1	148	PUZZLE6B		
082	BOXCAR2	149	PUZZLE7		
087	WEEKDAYS	149	PUZZLE8		
089	REACTION	OS	-9 Files		
090	ASTEROID	read.me.fi	ret		
090	ELEVATOR				
091	WORDMAKE	SOURCE Directory			
091	DIARY	Page	Filename		
092	MMDIR	136	Pr		
092	SNDCTRL	154	Find		
093	SIMPLDRA	154	Findit		
108	HECONOMY	155	Diskdir		
114	FUNSTATS	156	Checkdir		
117	RSTRMKR	157	Dodir		
118	RSTRFXR				

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

This edition of RAINBOW ON DISK includes:

Auto Repeat Repeating characters at the push of a button.

?Habla Espanol? Make your CoCo multilingual.

**Shopping Spree** Dodge moving merchandise and collect coupons in this game of skill.

**Tholean Web** Neutralize the force fields before the enemy ships strike.

**EduSpell** Developing a new, talking spelling tutor. Part II: The Dictionary.

Multi-Res Transfer PMDDE 3 and 4 graphics to the HSCREEN display.

ML Made BASIC 3-D rotation and a quicker way to draw lines.

Wishing Well Getting the whole picture with a verbal or visual fraction tutor.

Novices Niche Seven shorties to entertain and help you learn BASIC programming.

The Schematic Scoundrel, Revisited User-friendly symbol rotation for schematics.

**Barden's Buffer** Nine different graphic variances to show a falling object.

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

Syscall Sounds Produce sounds using Syscall to call the SS. Tone system call.

Cls Clearing the OS-9 text screen to one background color.

KISSable OS-9 Tie together the Find utilities from last month to locate lost files.



#### **July 1989**

# RAINBOW The Color Computer Monthly Magazine

## **ON DISK**

#### 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.

This month's RAINBOW ON DISK is formatted in such a way that programs for Disk BASIC are on both sides of the disk. The flip side of the disk has been "partitioned" and does hold 31 Disk BASIC files. You may copy these files to another disk manually or backup the entire flip side of the disk.

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-protect notches, so you cannot accidentally write to it.

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## How Do I Get to the OS-9 Programs?

The OS-9 side of RAINBOW ON DISK contains two directories: CMDS and SDURCE. It also contains a file, read.me.first, which explains the division of the two directories. The CMDS directory contains executable programs and the SDURCE 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 SDURCE 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.

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- 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 chdrd0 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 chdrd1 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 SQURCE 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 /dl/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 July 1989 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side Disk BASIC Files		Back S Disk BAS	
Page	Filename	Page	Filename
Page JULY 022 032 036 044 046 046 056 056 058 063 064 065 068 068 082 083 085 092 103 104 105 106 106 108 108 108 124 135	Filename  MENU REPEAT ESPANOL SPREE WEBBAS WEBDAT *WEB ROMRAM TAKETEST MAINMENU SPELLER PUTWORDS SETHELP MAKEDICY MULTIRES *MISSION *BINLINE *BINROTAT BASROTAT FRACTION BOWLING STORYWRT TAXTIP UPDNLIST LION DOGGONE SLOPEFNL CADMOD BALL1	Disk BAS	IC Files Filename BALL6 BALL7 BALL8 BALL9 A through Z (26 files) MAKEDICY Files  S Filename CIs
135 135	BALL2 BALL3		
135 135	BALL4 BALL5		

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The Color Computer Monthly Magazine

## **ON DISK**

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

This edition of BAINBOW ON DISK includes:

**Key Ahead** Allows typing in information or a command while the CoCo is busy doing something else.

**Quick Draw** Create a library of graphics designs with just two short programs.

The Black Box Solve this puzzle by using a ray gun to uncover the five hidden balls.

**The Graphics Corner** Part I of III in a series showing ways to create color graphics in BASIC and machine language.

**Desktop, Part II** High-density printer enhancements for the shoestring desktop publisher.

Time Test A program for timed drills in both multiplication and division.

Education Notes Help your child prepare for standardized testing.

Nickelodeon Turn your CoCo into a juke box and sing along.

**BASIC Training** Techniques for creating graphics characters.

Wishing Well Let CoCo calculate hours, minutes and seconds for taping purposes or any other time application.

Novices Niche Six shorties to entertain and help you learn BASIC programming.

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

**Kissable OS-9** This month, Dale Pucket presents Robert Moody's Maxic, a Multi-Vue-driven icon editor for OS-9 Level II.

**BASIC09** Utilities Use USTime to display the date and time in an easy to read format. Use StripBin to remove extraneous bytes of information from downloaded files.



#### August 1989

## RAINBOW

The Color Computer Monthly Magazine

## ON DISK

#### 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-protect 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 SDURCE. It also contains a file, read.me.first, which explains the division of the two directories. The CMDS directory contains executable programs and the SDURCE 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 SDURCE 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 chdzd0 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 chdzd1 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 SDURCE 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 /dl/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 1989 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.fir	st	
AUGUST	MENU	CMDS	Directory	
018	'KEYSBIN	Page	Filename	
020	KEYAHEAD	122	Maxic	
025	QUIKDRAW	122	icon.maxic	
025	CORE		E Directory	
027	BLACKBOX		Filename	
036	COLRDEMO	Page		
036	CIRCLE1	022	USTime	
036	CIRCLE2	023	StripBin	
044	DRIVERHT	125	Maxic	
048	DRIVERHE	122	AIF.max	
052	HALTER			
054	HALTERD			
054	HALTERE			
055	HALTERDE			
057	TIMETEST			
064	FOLLOW			
086	NICKEL-D			
102	DIAMOND1			
103	DIAMOND2			
104	REALTIME			
106	WORLD1			
107	GRAPH			
107	SNOFLAKE			
108	FONEFIND			
108	RBOWLIST			
110	PLAYCONV			

<sup>\*</sup> Indicates a machine language program.

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The Color Computer Monthly Magazine

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

This edition of RAINBOW ON DISK includes:

Coloring Book Turn your computer into an erasable coloring book.

Disk Database The third part in the database tutorial series covers data input routines.

**Bookworm** Smiling faces reward your child's efforts in math.

Basic+ A new extension to a familiar language.

**Duplicator** Airtight software that shows you how to make BASIC programs virtually crashproof.

The Graphics Corner Part II: Scroll the screen with a new approach to PSETing numbers without using coordinates.

Education Notes Relate ratio problems to everyday situations.

Novies Niche Six shorties to entertain and help you learn BASIC programming. Wishing Well CoCo teaches kids to "Just Say No."

**Kinderfun** Help preschoolers and early elementary students become familiar with colors, letters, numbers and music.

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

**Kissable OS-9** Part I in a series of tutorials taking you on a step-by-step tour of MaxIc, an icon editor for Multi-Vue.

**BASIC09** Utilities Get the most out of your disk storage with text file compression and expansion.



#### Rainbow on Disk September 1989

BASIC+	MORE BASIC COMMANDS; ALSO BSORT		SEP	1989	38
BOOKWORM	DEVELOP PROBLEM-SOLVING SKILLS		SEP	1989	
CHANGE	COUNTING CHANGE		SEP	1989	
COLRBOOK	GRAPHICS FUN		SEP	1989	
COMPRESS	TEXT FILE COMPRESSION; ALSO EXPAND		SEP	1989	112
CREATE	DISK DATABASE; ALSO DATAB		SEP	1989	20
DUPLICAT	PROGRAMMING UTILITY		SEP	1989	44
GROLIST	CREATE GROCERY LIST		SEP	1989	62
KINDERFUN	EDUCATION FOR THE YOUNG		SEP	1989	84
MAXLC	MODULAR PROGRAMMING TECHNIQUES		SEP	1989	114
MINDMSTR	GAME		SEP	1989	62
NODRUGS	GRAPHICS		SEP	1989	66
SCOPE	KALEIDOSCOPE		SEP	1989	63
SCRLDEMO	GRAPHICS UTILITY; ALSO SCROLL ETC		SEP	1989	48
SONGRITR	MUSIC		SEP	1989	60
STARDEF	GAME		SEP	1989	60
	OS-9				
SEP89		91/08/25	22:29		A0
read.me.fi	rst	89/07/21	00:02		12C
CMDS		91/08/25	22:28		60
icon.m	axic	89/06/11	20:37		90
SOURCE		91/08/25	22:28		180
Compre	ss	89/06/17	19:51		3A8
Expand		89/06/17	19:51		2D3
MaxIc		89/07/21	00:30		100F
main		89/07/21	00:30		D1D
menup		89/07/21	00:31		260
setbuf		89/07/21	00:31		BD0
clearb	uf	89/07/21	00:31		1EA
FILES		89/07/21	00:31		5EC
showdi	r	89/07/21	00:31		4DB
AIF.mi	С	09/04/09	21:10		31

## The Color Computer Monthly Magazine ON DISK

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The disk is specially formatted and contains both BASIC and OS-9 operating system programs. This edition of RAINBOW ON DISK includes:

**Tricky Graphics** Create graphics invisibly, animate letters and enjoy a game of *Letter Carrier*.

**Graphics Programmer** Speed up the process of converting artwork into BASIC code. **Super Quiz** Use this program to create your own study guides.

Wishing Well Updating and rewriting programs can be a rewarding experience.

**Educational Notes** Enhance those boring spelling lessons with *Codeword*, a shifty word drill tutor.

Novices Niche Six shorties to entertain and help you learn BASIC programming.

Desktop, Part III Lessons on saving half-screens for the shoestring desktop publisher.

The Graphics Corner Part III of three in a series showing ways to create color graphics in BASIC and machine language.

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

**BASIC09** Utilities Have more information at your fingertips with this utility for updating files.

Kissable OS-9 This month Dale Pucket further explains Robert Moody's *MaxIc*, a *Multi-Vue*-driven icon editor for OS-9 Level II.



#### October 1989

## **RAINBOW**

The Color Computer Monthly Magazine
ON DISK

#### 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 RAINBOWON 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.

BASICO9 programs will only be offered in source form so they will only be found in the SOURCE directory.

Since this month's RAINBOW ON DISK offers BASIC09 programs, the SOURCE directory will be the only one found on the disk. There is no CMDS directory on this month's RAINBOW ON DISK. To use this month's programs, first boot OS-9 and execute BASIC09. Then use the chd command to make the RAINBOW ON DISK SOURCE directory your current data directory and load the programs into the BASIC09 workspace.

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 RAINBOWONDISK in Drive 1. Then type chd/d1 and press ENTER.
- 3) List the  ${\tt read.me.first}$  file to the screen by typing  ${\tt list}$   ${\tt read.me.first}$  and pressing  ${\tt ENTER}$ .
- 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

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 October 1989 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side Disk BASIC Files		-	Back Side OS-9 Files read.me.first		
	Page	Filename	SOURCE	Directory	
	OCTOBER	MENU			
	022	CARRIER	Page	Filename	
	030	GRAPHPRO	072	Touch	
	038	DEMO	077	Touch.hlp	
	043	SUPRQUIZ	090	RSDir	
	048	METEOR3	091	Display	
	052	CODEWORD	112	tandy	
	058	MARYNOTE	113	dirfiles	
	059	MINICAD	115	getans	
	060	SPRAYCAN	116	writefile	
	061	FRACTMTN	117	getname	
	061	JULIASET	118	getdir	
	062	TIMESHT	118	mouser	
	064	DHPATCH	118	loadicon	
	064	HTPATCH	119	winset	
	065	HEPATCH	120	getfile	
	068	NEWCOMER	120	getkey	
	080	NEIGHBR1			
	080	NEIGHBR2			
	080 *	NEIGHBOR			
	081	NEIGHBAS			

<sup>\*</sup> Indicates a machine language program.

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#### November 1989

## **RAINBOW**

The Color Computer Monthly Magazine
ON DISK

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

This edition of RAINBOW ON DISK includes:

Code Master Let your CoCo teach you Morse code or increase your code proficiency.

**Educational Notes** Get a grasp of the odds while exercising the laws of probability.

Patchwork A utility for snooping around and changing bits and bytes on your disks.

**Novices Niche** Five shorties to entertain and help you learn BASIC programming.

**Wishing Well** Give an old program a face lift with innovative renovations with *Siege2*.

**Caption** Create captivating captions for home photo albums and other applications.

Checkers Champ Spend an evening out on the tiles playing checkers.

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

**Amortize** Keep an eye on principal payments down the road. **Kissable OS-9** Part three in the tutorial series exploring the *Maxic* icon editor.



#### November 1989

## **RAINBOW**

## The Color Computer Monthly Magazine ON DISK

#### 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 RAINBOWONDISK, 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. BASICO9 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 DISKIN 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 November 1989 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side		Back	Back Side		
Disk BASIC Files		OS-9	OS-9 Files		
Page Filename		read.me.first			
NOVEMBER MENU		SOURCE I	Directory		
016	CODEMSTR	Page	Filename		
024	PROBABLE	020	amortize		
027	BLASTER	114	geticon		
039	FIGDRW	116	saveicon		
040	NOSMOKE	117	readicon		
040	AUTOMILE	118	showicon		
042	HRGCOM	118	writeicon		
042	BINGO	120	editor		
054	SIEGE2	121	updatbuf		
058	CAPTION	121	errmsg		
086	CHECKERS	121	loadbar		

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## The Color Computer Monthly Magazine ON DISK

#### December 1989

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

This edition of RAINBOW ON DISK includes:

Winter Magic - Let Magic turn your CoCo 3 display into a winter wonderland.

**Snowman Blues** - Enjoy the heart-melting story of Frosty the Snowman. **Peg Me** - Test your I-Q with this peg positioning game.

Education Notes - Tis the season for rhyme and reason with *Poetry*. The Quest - Search for the wonderous energy star in this a-mazing adventure.

Basic Training - Stretch your programming muscles with CoCo.

Personal Secretary - Write your personal CoCo Yellow Pages.

Wishing Well - Here's a tutorial for teaching your child to identify upperand lowercase letters.

**Turn of the Screw** - RAM Disk, Part III. The final steps for testing and using your new RAM Disk.

**Barden's Buffer** - Study the innerworkings of gambling programs: random and pseudo-random numbers.

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

**Multi-Vue Applications** - An icon editor to expedite getting those applications up and running in the *Multi-Vue* environment.

BreakPoint - Greg Law presents Steve Goldberg's su, a utility providing a much easier and faster method logging in under a different user ID. Flipper09 - Capture your opponents pieces in this strategic board game. Printing the Unprintable - Using arguments to keep it clean while listing binary files to the screen.



## The Color Computer Monthly Magazine ON DISK

#### 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. BASICO9 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  ${\tt chd/d0}$  and press ENTER. If you have two disk drives, leave the system master in Drive 0 and put the RAINBOW ON DISKIN Drive 1. Then type  ${\tt chd/d1}$  and press ENTER.
- 3) List the read.me.first file to the screen by typing list read.me.first and pressing ENTER.
- 4) Entering  $\operatorname{dir}$  will give you a directory of the OS-9 side of RAINBOWONDISK. To see what programs are in the CMDS directory, enter  $\operatorname{dir}$  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 December 1989 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front	Side	Back	Side		
Disk BASIC Files		OS-9	OS-9 Files		
Page	Filename	read.n	read.me.first		
DECEMBER	MENU	CMDS D	CMDS Directory		
Ø14	*SNOW	Page	Filename		
Ø14	*BACKGRND	Ø4Ø	edic		
Ø14	MAGIC	Ø89	su		
Ø2Ø	FROSTY	1Ø6	FlipperØ9		
Ø28	COCO-Q	121	read.b		
Ø32	POETRY	122	read.c		
Ø47	THEQUEST				
Ø54	FLASHES	SOURCE	Directory		
Ø54	DRILL1	Page	Filename		
Ø55	DRILL2	Ø4Ø	edic		
Ø56	COCOMEMO	Ø89	su.c		
Ø61	UPLOCASE	1Ø6	FlipperØ9		
Ø64	GENTEST	121	read.b		
Ø66	GENDRIVE	122	read.c		
12Ø	RANDOM				
12Ø	SLOTS				

<sup>\*</sup> Indicates a machine language program.

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# The Color Computer Monthly Magazine ON DISK

## January 1990

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

This edition of RAINBOW ON DISK includes:

**Saving Variables** Protect variables from the whims of BASIC while you're in Edit mode.

**Key Edit** A keyboard supercharger that helps make the CoCo user-proof. **Novices Niche** Nine shorties to entertain and help you learn BASIC programming.

Wishing Well Use *Primary Math Driller* to quiz children in both addition and subtraction.

The Frustrator Watch out for the deadly skulls while trying to outmaneuver CoCo in this strategic board game.

The Mandelbrot Bug Let your computer explore uncharted landscapes in Mandelbrot's world of fractals.

**Designing Icons** Three utilities to let you create original full 16-color icons. **BASIC Training** Achieve in-place animation in your graphics designs by quickly substituting images in eight or twelve locations.

**Stationery Station** A simple program that creates personalized stationery on a DMP-105.

**Gravity** An educational game that provides practice and simulation in one of the most fundamental concepts of Newtonian physics.

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

Calendar CoCo will help you organize your life with reminders of important dates stored in a calendar.

BreakPoint Here is a utility to locate lost disks painlessly.

Label A utility to print a label or two that remains available like any OS-9 command.



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- 1) Type load dir list copy and press ENTER.
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- 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 RAINBOWON 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.
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One-drive system: copy/d0/cmds/filename/d0/cmds/filename-s

Disk B	nt Side ASIC Files	os	ck Side -9 Files
Page	Filename		ndar_file
JANUARY	MENU		Directory Filename
014	VARKEEP	Page	
		046	calendar
028	KEYEDIT	053	curr_cal
030	WHATDAY	055	createfile_cal
031	COPY	110	label
032	BOXMENU		
032	MOON	SOURC	E Directory
034	CONVERT	Page	Filename
036	RAINBOW	046	calendar
037	MEMOMAKE	053	curr cal
038	SMASH	055	createfile cal
039	QGRASS	056	vol
043	DRILLER3	110	label.c
073	FRUSTRAT		
080	MANDEL		
083	DESIGNER		
086	CREATSET		
086	ICONGRAB		
089	LISTING1		
090	LISTING2		
090	LISTING3		
108	STATION		
114	GRAVITY		
1 1 **	GHAVIII		

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# The Color Computer Monthly Magazine ON DISK

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This edition of RAINBOW ON DISK includes:

**From Fractures to Fractions** Perform mathematical calculations on fractions and reduce them to their lowest form.

**The Total Figure** A spreadsheet program written in assembly language for smooth operation and speed.

**Novices Niche** Six shorties to entertain and help you learn to program.

**Barden's Buffer** A project for interfacing thermometers and other input devices with the Hi-Res Joystick Interface.

A New Fangled Maze Solve the mysterious maze within the alloted number of moves, but don't lose count.

**BASIC Training** Rotate images in quadrants to achieve spectacular results.

Wishing Well Use Music 101 to guiz children in musical notation.

Bank & Budget Maintain your checkbook and track your cash flow.

From Screen to Printed Page Print the 32-, 40- and 80-column text screens to the printer with a single keystroke.

Concentrate Find the matching cards and test your memory skills.

**Education Notes** Score points in a game of basketball by solving mathematical problems.

**Darkroom** Build a simple interface for an enlarger with an automatic exposure timer.

**Guitar 3** Strum along with the CoCo as you browse through the chords shown on the screen.

Medic 3 Keep track of all those medical bills the easy way.

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

**Verify** Achieve faster disk operations by disabling the verify option. **BreakPoint** Learn about dissecting the command line with a sample directory utility.



# The Color Computer Monthly Magazine ON DISK

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Front Side Disk BASIC Files			Back S OS-9 Fi	
	Page	Filename	read.me	
	FEBRUARY	MENU	CMDS Dire	
	012	FRACTION	Page	Filename
	030	COCOCALC	056	vfy
	034	LOADER	123	udir
	035	MARQUEE3		
	036	MCP		
	036	HBUFF	SOURCE D	irectory
	037	ESCAPE	Page	Filename
	038	LISTER	056	vfy.c
	040	JOURNAL	123	udir.c
	049	READHI		
	050	MAZEWAY		
	054	AOPTION		
	062	MUSIC101		
	076	CHECK1		
	079	CHECK2		
	084	PRT		
		PRTASM		
	090	CCTRATE		
	095	BASKET		
	098	DARKROOM		
	112	GUITAR3		
	118	MEDIC3		

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The Color Computer Monthly Magazine
ON DISK

#### March 1990

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This edition of RAINBOW ON DISK includes:

**Wishing Well Watch This** helps children learn to tell time on two-handed and digital clocks.

**Worm Invaders** Protect your city from the space worms in this Hi-Res action game.

**Digital Logic Analyzer** A hardware project for testing complicated circuit designs.

Barden's Buffer Turn your CoCo into an oscilloscope and plot electrical signals.

CoCoClean Clean your disks of the scattered garbage remaining after file kills

Novices Niche Six shorties to entertain and help you learn BASIC.

**BASIC Training** Rotate designs around a central point by manipulating the DRAW strings.

Moon Mapper Track the orbits of the Galilean satellites of Jupiter.

A Perfect Star A quick lesson in trigonometry and Color Computer graphics. Educational Notes Learn the Canadian provinces and capitols while playing a game of one-on-one basketball.

Samurai A multi-level dungeon game pitting you against the Swordmaster.

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

**Do The Split** A program that chunks down text for your word processor. **BreakPoint** An assembly language utility allowing you to alter the process priority for faster or slower execution.

Carte Blanche Now you can build menus on BASIC09 programs.



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Front Side Disk BASIC Files		Back Side OS-9 Files	
Page MARCH 012 020 032 046	Filename MENU WATCH WORMINVD TESTIF SCOPE		.me.first  Directory  Filename  split  nice
055 060 061 061 062 062 063 080 084 085 094 112	COCOCLN LOCASE ATTR HCAT CATS INNKEEP MORTGAGE DIAMONDS GALISAT2 GALISAT3 TRIG1 TRIG2 BASKETBL SAMURAI	SOURC Page 086 089 098 119 122 123	E Directory Filename split.asm makesplit nice.asm Carte_Blanche bldmenu test

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The Color Computer Monthly Magazine

# **ON DISK**

### **April 1990**

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**Icarus** Help Icarus through three levels of penguin perils in this CoCo 3 arcade game.

Calculator Turn CoCo into a printing calculator.

The Golden Retriever A free form program to let you create unique databases.

Barden's Buffer Take your files for a spin with this rotary file organizer.

**Novices Niche** Six shorties to entertain and help you learn programming.

Form Maker A program for creating forms on IBM-compatible printers.

Bar Graph A 3D bar graph program for charting numeric information.

**Digital Logic Analyzer** (Part II) Here is the software required to use your new logic analyzer.

Education Notes Fun with phonics.

**BASIC Training** The continuing saga of string manipulation to produce amazing graphics.

The File Handler Add some spice to your file handling with a wildcard copy command.

**Price Check** Markups and discounts are made easy with this number juggling routine.

**Wishing Well** A graphics program that helps new music students learn to read music.

### The OS-9 "flip" side of this month's rainbow on disk includes:

**Volume Profit Analysis** Marketing analysis utility to help determine breakeven point.

**BreakPoint** Tutorial explaining differences between the rma assembler and the standard assembler. How to convert files to the rma assembler.

Kissable OS-9 Using new gfx2 routines to recreate an older finance program.



# The Color Computer Monthly Magazine ON DISK

#### 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. Forthis 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  ${\tt chd/d0}$  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  ${\tt chd/d1}$  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.
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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 April1990 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

# Front Side Disk BASIC Files

Page	Filename	108	+COPYASM	
APR	MENU	108	*COPYASM	
014	PENGUIN	109	COPY	
018	DEMO	109	ALLRAM	
022	CALCULAT	116	MARKUP	
026	COLRBASE	118	MUSIC102	
032	CONFIG			
040	R*L*D*X			
048	WATER	Ba	ack Side	
048	SPIDERS	OS-9 Files		
049	AGENDA			
050	CHASE		d.me.first	
050	BIRD	CMDS	DIRECTORY	
051	FALLING	Page	Filename	
065	FORMAKER	044	cost	
068	3DGRAPH	114	nice	
080	ANALYZER	SOURCE	DIRECTORY	
082	+ZEROBUF	044	cost.pas	
082	+MOVESRAM	052	MVFinance	
084	FACTOR	114	nice.a	
084	TESTBAS			
084	+TESTBIN	+ Indicates an a	assembly language source file.	
085	VOWELS	* Indicates a ma	achine language program.	
088	WINDMILL			

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# The Color Computer Monthly Magazine ON DISK

### May 1990

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

This edition of RAINBOW ON DISK includes:

**Disk Database** The fourth part in the database tutorial series explains how to use the system on a regular basis.

Scaling Mt. Mandelbrot A way to speed up routines in ROM using complex math.

**Wishing Well** A graphics program that helps music students learn to read the Bass Clef.

**Booklet Plus** Create 14-page booklets — new routines for a growing program. **Mind Stimulator** Breaking the code of this guessing game will require patience and logic.

**CoCo Typewriter** Turn your computer and printer into a word processor. **Barden's Buffer** How you can use the CoCo 3's expanded memory for storing and retrieving high-resolution screens and BASIC data.

Education Notes Learn how to cook with metric measures.

The 0S-9 "flip" side of this month's RAINBOW ON DISK includes:

**BreakPoint** Review the segment lists stored in the OS-9 file descriptors — learn about directory structure from the ground up.

Larry's Labeler Create labels listing the directory contents of OS-9 disks.



# The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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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.

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### 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. BASICO9 programs will only be offered in source form so they will only be found in the SOURCE directory.

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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 May 1990 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side Disk BASIC Files		k Side 9 Files
<b>Filename</b> MENU		e.first Directory
DATAB		Filename
SCALE1	032	files
*SCALEMAN		
+SCALEMAN		
SCALEDRV	SOURC	E Directory
MUSIC103	031	files.b09
FIXER	032	files.c
MUSIC104	048	dlabel
PATBOOK		
BKLTPLUS		
MINDSTIM		
COLRTYPE		
MANAGER		
SAMPLE		
METRIC		
	k BASIC Files Filename MENU DATAB SCALE1 *SCALEMAN +SCALEMAN SCALEDRV MUSIC 103 FIXER MUSIC 104 PATBOOK BKLTPLUS MINDSTIM COLRTYPE MANAGER SAMPLE	k BASIC Files  Filename MENU DATAB SCALE1 *SCALEMAN +SCALEMAN SCALEDRV MUSIC 103 FIXER MUSIC 104 PATBOOK BKLTPLUS MINDSTIM COLRTYPE MANAGER SAMPLE

- + Indicates an assembly language source file.
- \* Indicates a machine language program.

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# The Color Computer Monthly Magazine ON DISK

#### June 1990

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

This edition of RAINBOW ON DISK includes:

**Vegas at Your Fingertips** Hit the slot machines in 'Vegas with this nifty simulation for the CoCo 3, without losing all your marbles or your money. **Education Notes** Tailored to meet the needs of intermediate school students, this program finds consecutive numbers that add up to a particular sum. **Wishing Well** What comes between E and G? Learn the letter sequence of the alphabet with this friendly quiz.

Back From the Dead Examine and modify any sector on disk with this disk editor.

**Novices Niche** Three shorties to help your youngster learn letters and numbers, give your CoCo 3 a super POKE command, and solve quadratic equations.

**CoCo Jumble** Which of you has the largest vocabulary and imagination? Use this enjoyable scrambled-word game for your CoCo 1, 2 or 3 and challenge your friends to find out.

BASIC Training Use ADPTION1 and ADPTION2 and follow along with Joseph Kolar as he wraps up the DRAW tutorial.

**The Assembly Line** Use MODIFY, a machine language program to rotate, reduce, enlarge and copy PMODE graphics pictures.

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

**Type Does Windows** Use type, a short program to change the window type and colors of the current window.

BreakPoint Learn how to scale the directory tree with this pwd work-alike.



# The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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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.

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### 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.
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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.

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Front Side Disk BASIC Files		Back Side OS-9 Files read.me.first	
Page	Filename		Directory
JUNE	MENU	Page	Filename
014	SLOTS	036	type
018	CONSEC	046	pwdir
023	BETWEEN		
033	DISKEDT		
048	QUADRATC	SOURCE	E Directory
048	LETRSNUM	Page	Filename
049	SUPRPOKE	036	type.c
052	JUMBLE2	046	pwdir.c
052	JUMBLE1	0.10	pae
056	AOPTION1		
057	AOPTION2		
086	+ MODIFY		
086	* MODIFY		
089	DOMODIFY		

<sup>+</sup> indicates a machine language source file

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The Color Computer Monthly Magazine
ON DISK

### **July 1990**

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This edition of RAINBOW ON DISK includes:

Handy Labeler Use this utility to create and print pin-feed mailing labels. Barden's Buffer Find the solutions to eight perplexing problems with this puzzle potpourri.

**Just Between Terminals** Become a data processing chip and take on the responsibility of transporting data between computers, but watch out for the negative charges!

**Do-It-Yourself Database** Print reports and search for records with the final listing in the database series.

Wishing Well Challenge your friends to a game of EZ-Thello.

**Education Notes** Search the world over and learn to take the right directions with this educational tool.

**Knight's Errant** Swap the black and white knights in as few moves as possible in this challenging puzzle.

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

THE OS-9 THP Side of this month's HAINBOW ON DISK Includes

**For Your Eyes Only** Protect the security of your single-user system with password protection.

**Kissable OS-9** Complete the *MVFinance* application with two update routines and loanprocs.



# The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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Front Side Disk BASIC Files			k Side 9 Files
DISK BASIS I IICS			me.first
Page	Filename		
JULY	MENU	CMDS	Directory
014	LABEL	Page	Filename
025	COINTOSS	033	log
025	MAKEBUCK		_
025	EASYASPI	SOURCE	E Directory
025	HACKER	Page	Filename
025	CANNON	033	log.asm
025	MEETING	048	Update1
025	SHUFFLE	049	Update2
025	SUMDIGIT	050	loanprocs
028	DATATRAN	048	MVFinance
039	RETRV		
054	EZTHELLO		
086	MAP		
091	KNIGHT		

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The Color Computer Monthly Magazine
ON DISK

### August 1990

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

This edition of RAINBOW ON DISK includes:

**Cracking Nautical Code** Use this program to learn the meanings of each of the flags used aboard ships.

Wishing Well Challenge the computer to a game of EZ-Thello.

Frustration Extenguisher Let this program "pretty-print" your BASIC listings into an easily readable form.

Spiral Watch as the computer transforms itself into a sprial maker.

Doublewide Print two double-screen PMODE screens side-by-side.

**The Assembly Line** Transform your computer into an endless spiral generator.

CoCo 3 Joystick A simple program for colorful doodling with a joystick.

Who Dunnit? Solve this murder mystery before you run out of time.

**Line Copy** Use this program to make a copy of any line in your program.

The OS-9 "flip" side of this month's rainbow on disk includes:

**GIME CART\* IRQs** Apply these patches for proper IRQ handling under OS-9 Level II.

Life Without Line Numbers Print your name on the screen as you learn how fun BASIC09 really is.

**BreakPoint** Use these routines to get your process and user ID, the current time, and the device name of the screen you are using.



# The Color Computer Monthly Magazine ON DISK

#### 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. BASICO9 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  ${\tt chd/d0}$  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  ${\tt chd/d1}$  and press ENTER.
- 3) List the read.me.first file to the screen by typing list read.me.first and pressing
- 4) Entering  $\operatorname{dir}$  will give you a directory of the OS-9 side of RAINBOWONDISK. To see what programs are in the CMDS directory, enter  $\operatorname{dir}$  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 April1990 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		.me.first
AUGUST	MENU	CMDS	Directory
011	CODEFLAG	Page	Filename
030	EZTHELO2	025	FilePatch
036	* LISTER	SOURC	E Directory
036	+LISTER	Page	Filename
036	LISTER1	025	FilePatch
042	SPIRAL	026	Clock50.ptc
045	* DBLWIDE	026	Clock60.ptc
045	+ DBLWIDE	026	init.ptc
046	DWIDEBAS	065	PrintName
046	CREATE	066	PrintName1
053	SPIRO1	066	PrintName2
054	SPIRO2	074	GetID
055	* SPIRO	074	GetTime
055	+ SPIRO	074	DeviceName
059	JOYSTK3		
068	DETECTO		
070	LCOPY		

- \* Indicates a machine language program.
- + Indicates an assembly language source file.

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The Color Computer Monthly Magazine
ON DISK

### September 1990

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

This edition of RAINBOW ON DISK includes:

**Plot a Lot** Graph almost any mathematical equation on the Hi-Res graphics screen.

**Banzai!** Challenge the CoCo or a friend to a round of Karate in the Belto Tournament.

Air Raid Fly your high-tech, bi-directional plane through the enemy's anti-aircraft missiles, but don't get hit.

Barden's Buffer Use this program to gather input from a remote keypad.

**Wishing Well** Use this educational program to teach your children mathematical skills involving money.

**Education Notes** Learn about famous Black Americans and how they helped form this great melting pot.

The Assembly Line Watch as a group of cells simulate the process of life and death.

Color Ball Play a game of pinball with a paddle instead of flippers for an unusual twist.

Addition Practice your addition skills under the challenge of the clock.

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

**BreakPoint** Use these six shorties to develop skills with BASIC09's file I/O commands.

KISSable OS-9 Track your students' grades (or your own) with this handy gradebook.

**TSMail** A powerful mail-merge utility for creating fancy and personalized form letters.



# The Color Computer Monthly Magazine ON DISK

#### 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.

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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  ${\tt chd/d0}$  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  ${\tt chd/d1}$  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.
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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 RAINBOWONDISK, refer to the September 1990 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side Disk BASIC Files			k Side 9 Files
Page	Filename	read.	me.first
SEP	MENU	CMDS	Directory
012	GRAPH	Page	Filename
020	KARATE	040	GradeBook
031	RAID	083	TSMail
035	KEYPAD	SOURCE	Directory
037	MATHGEN3	Page	Filename
046	AMERICAN	030	Print_Test
049	EATING1	030	Input_Test
050	+ EATING2	030	Write_Test
050	* EATING2	030	Read_Test
051	EATING3	030	Put_Test
059	COLRBALL	030	Get_Test
093	ADDITION	040	GradeBook
		083	TSMail

- + indicates an assembly-language source file
- \* indicates a machine-language program

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# The Color Computer Monthly Magazine ON DISK

#### October 1990

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

This edition of RAINBOW ON DISK includes:

**Spectra 3** Create your own graphics masterpieces with this amazing graphics editor.

**Wishing Well** Learn the relationships of numbers by selecting a number that goes between a set of given numbers.

Dice Use this routine to draw and roll a pair of computer-generated dice.

Hi-Res Input Editor Use this routine to allow graphics-screen input and backspacing.

**Descriptive Error Messages** Help your CoCo 3 generate error messages that a human being can understand.

**The Assembly Line** Teach your computer to read and modify BASIC programs. **Turn of the Screw** The software end of the EPROM programmer.

**Last Line Recall** A utility to recall the last line entered effortlessly with only one keystroke.

All the Knight Moves Determine your Chess IQ by solving the Knight's Errant puzzle in as few moves as possible.

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

**BreakPoint** Six shorties to help you grasp the fundamentals of Disk vo in BASIC09.

Getting the Picture With os-9 A graphics viewer for VEF format graphics files.

KISSable OS-9 Three shell scripts and two BASIC09 procedures to help you learn how to manipulate graphics images with OS-9.



# The Color Computer Monthly Magazine ON DISK

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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 October 1990 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side Disk BASIC Files			ick Side 6-9 Files
Page	Filename	rea	d.me.first
OCT	MENU	SOUR	CE Directory
014	MAKESPEC	Page	Filename
020	SPECTRA	032	Open_Test
025	+SPECTRA3	032	Create_Test
025	* SPECTRA3	032	Delete_Test
035	BETWEEN2	032	Create_File
037	DICE	032	Read_File
037	INPUT3	032	Records
051	ERRMSG	046	VEF
056	+ INPUT	061	Objects.scr
056	* INPUT	062	GetPutDemo.scr
057	INPUTBAS	062	GetPutDemo.b09
064	MAKEPROM	062	Calendar.scr
087	LASTLINE		
093	CHESSIQ		

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# The Color Computer Monthly Magazine ON DISK

### November 1990

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

This edition of RAINBOW ON DISK includes:

**Stevedores!** A BASIC version of a popular Russian game but disguised in a new scenario.

**Your Age in Days** This intriguing program calculates any person's age in the number of days since he or she was born.

The Assembly Line Jump aboard the Turing bus.

**Adding Machine** A tape-printing adding machine that sends running totals to both the printer and the screen.

**CoCos and Laser Jets** Print hi-res graphics worksheets on your LaserJet-compatible printer.

**Pop-Up Menus** A subroutine that centers, allows for a heading, and takes the menu choices from data statements.

**Education Notes** Presents a calendar for the month of November, 1990, and asks several questions concerning dates and weeks.

**Music Catalog** A program that gives collectors an easily accessible way to keep track of their music collection.

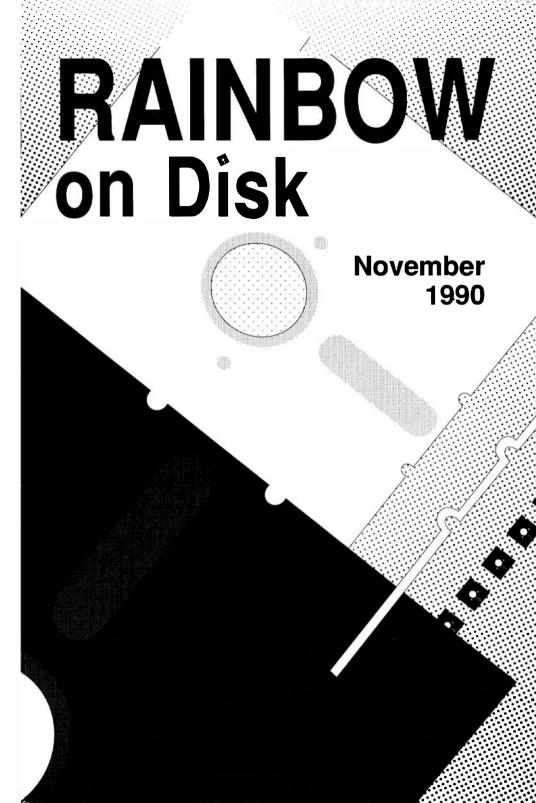
**Laser Cycles** An action-video game with color graphics and sound that works on all Color Computers.

**Wishing Well** A program designed to help students recognize the appearance of our 50 states.

**Peeking at 135** A program that can be substituted for an INKEY\$ command in programs where you do not want to pause the action while the program waits for a keypress.

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

**Displaying Picture Files** Two programs to demonstrate the process of run-length decoding techniques.



# The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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- 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.
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Front Side		k Side	
Disk BASIC Files		OS-9 Files	
Filename	read	.me.first	
MENU	CMDS	Directory	
STEVEDOR	Page	Filename	
AGEDAYS	025	FilePatch	
TURING1	SOURC	E Directory	
TURING2	Page	Filename	
* TURING	050	GetLine.b09	
+ TURING	051	GetPacket.b09	
* 4CTURING			
+4CTURING			
ADD			
CCGRAPH			
\$MSGRAPH			
POPUP			
CALENDAR			
MUSIC			
LASER			
STATES			
PEEK135			
	IC Files Filename MENU STEVEDOR AGEDAYS TURING1 TURING2 * TURING * 4CTURING + 4CTURING ADD CCGRAPH \$MSGRAPH POPUP CALENDAR MUSIC LASER STATES	IC Files Filename MENU STEVEDOR AGEDAYS TURING1 TURING2 TURING TU	

- \* Indicates machine-language program
- + Indicates assembly-language source
- \$ Indicates GW-BASIC program for MS-DOS

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# The Color Computer Monthly Magazine ON DISK

### December 1990

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

This edition of RAINBOW ON DISK includes:

**CoCo Home Video** Use *CoCoShow* (provided courtesy of Colorware) to view video scenes created by the authors.

**Wormy** A classic computer game in which you steer the worm around the screen to eat the food.

**Wishing Well** A concentration-type game in which you match the 50 states. **Better Letters** A word game similar to a popular board game with just a few differences in scoring.

Huck Bucks Use this program to create your own play money.

Barden's Buffer Puzzle contest winners.

Hot Gold The traditional game of hot/cold comes to the CoCo.

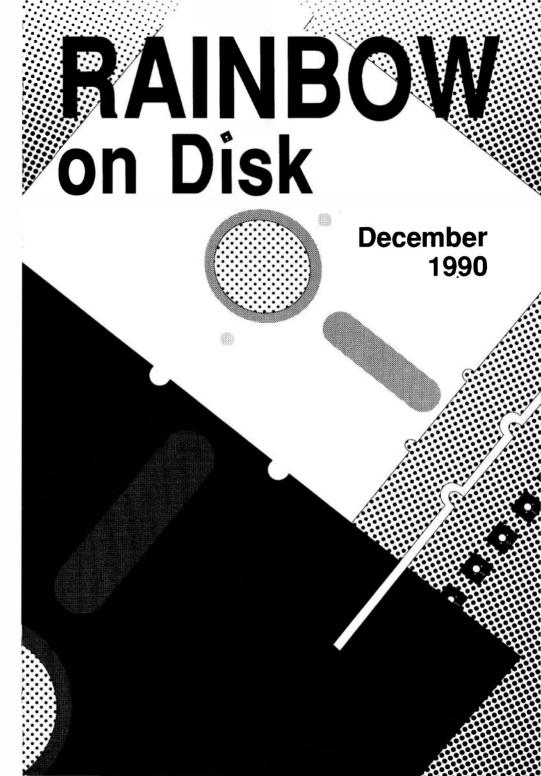
**CoCo TV** A set of programs to help you start your own TV series with a little help from your friend.

**Angles on the CoCo** An educational program that offers an introduction to trigonometry.

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

**Displaying Picture Files** Two programs to demonstrate data compression techniques.

Ring the Alarm A utility to examine and set alarms using the F\$Alarm system call.



# The Color Computer Monthly Magazine ON DISK

#### 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  ${\tt chd/d0}$  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  ${\tt chd/d1}$  and press ENTER.
- 3) List the read.me.first file to the screen by typing list read.me.first and pressing ENTER.
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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 RAINBOWONDISK, refer to the December 1990 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

	Front Side	Back Side
Page DEC 010 010 010 010 010 020 029 047 050 056 057 064 065 066 066 066 067	Disk BASIC Files Filename MENU + COCOSHOW * SAVESEQ * ARIZONA * CAR * HALOWEEN * IDEAS WORMY MATCH50 ADD-ON HUCKBUCK CARDPUZL DRAWCARD HOTGOLD HEADER CREDGEN TELEPRMT SCRIPTO WHOSONLN COCOTRIG	OS-9 Files read.me.first SOURCE Directory Page Filename 036 SetBuffer.b09 038 VEF.b09 041 alarm.b09 056 SumDigits.b09

<sup>+</sup> CoCoShow program provided courtesy of Colorware.

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Just enter RUN"COCOSHOW" to execute.

<sup>\*</sup> Data files used by CoCoShow

# The Color Computer Monthly Magazine **ON DISK**

### January 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:

**Disk Master 3** Seven menu-driven utilities allowing you to take control of your disk system on a CoCo 3.

**Border Color Change** A simple utility that allows you to greatly enhance your CoCo 3 screen displays.

**Education Notes** This month's program reviews the life-skill math problem of buying multiples of stamps and postcards at a post office.

**Wishing Well** This program concentrates on the relationship between different fractional parts and uses graphics to demonstrate the concept.

**Coloring** Draws overlapping boxes and circles on the screen that you can color and paint.

**Directory Alphabetizer** Arranges all filenames in a disk directory in alphabetical order.

In the Name of Equality A mathematical game similar to Scrabble.

**Fishing for the Right Words** Fishbowl encourages you to let your creative juices flow by creating a poem from 12 randomly generated words.

**Pie Plotter** Allows CoCo 3 users to draw multi-color pie graphs from raw data. **Directory Lister** Sends the directory listing of a disk to the printer.

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

**Weights & Measures** Allows you to quickly convert from one type of measurement to another.

**BreakPoint** Three sample programs to demonstrate the principles of opening, creating and determining the existence of files.

**Append** A multi-function utility that can be used as a replacement for both build and merge.

**Module Buster** A utility that breaks down files of merged modules.



# The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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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.

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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 <code>chd/d0</code> 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 <code>chd/d1</code> and press ENTER.
- 3) List the read.me.first file to the screen by typing list read.me.first and pressing ENTER.
- 4) Entering  $\mathtt{dir}$  will give you a directory of the os-9 side of RAINBOWONDISK. To see what programs are in the CMDS directory, enter  $\mathtt{dir}$  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 1991 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Disk	ront Side BASIC Files		Side
Page	Filename MENU		Files ne.first
J <b>AN</b> 012	CONFIG		Directory
012	BOOT	Page	Filename
014	* EDIT.SYS	052	test 1
016	* LIST.SYS	054	test 2
018	* TEST.SYS	054	test_3
020	* TRAK.SYS	068	Append
021	* COPY.SYS	SOURCE	Directory
022	* KILL.SYS	Page	Filename .
022	* SORT.SYS	030	Measure.b09
024	BORDER	052	test 1.c
024	+ BORDERA	054	test 2.c
035	MAIL	054	test 3.c
040	VISFRAC2	068	Append.asm
044	COLORING	071	Make Append.b09
055	DIRALPHA	094	Bust.b09
062	EQUALITY		
064	FISHBOWL		
084	PIECHART		
086	DIRLIST		
086	DIRLIST		

+Assembly Language Source

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<sup>\*</sup> These files are not stand-alone — they are designed to be run with the *Disk Master 3* system. Also, they must have a .SYS extension.

# The Color Computer Monthly Magazine ON DISK

### February 1991

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

This edition of RAINBOW ON DISK includes:

**Home Budget Analyst 4.0** CoCo lets you record and maintain your personal budget, estimate income and expenses for future budgeting periods, view future account balances, and more. **Neat Labels** A program to retain a list of addresses in data lines and print any or all of them on 4½-by-1½ fanfold labels.

**Jumpman** A BASIC game that uses intricate techniques to move objects and scroll the screen. **Loans** Quickly determine monthly payments and interest on loans or mortgages.

The Assembly Line An educational program that draws Mandelbrot and Julia sets.

Bank Account A simple program to help balance your checkbook in the manner suggested on most bank statements.

**Wishing Well** CoCo helps students become more familiar with decimal versions of fractions. **Quick Directory Sorter** A machine-language program to sort your directories quickly and easily.

**Bond Calculator** Calculates the current yield and yield to maturity for bonds.

Timer A simple countdown timer/stop-watch program.

**Solid Foundation in Chemistry** A program that aids in the learning of chemistry basics.

Darts A game allowing you to play the Tactics and 501 versions of darts.

**Weights on Other Planets** Discover what you'd weigh on the sun, moon, or any of the planets in our solar system.

**Body Mass** A simple program that calculates your body mass and indicates whether you are underweight, at optimal weight, are overweight, or are obese.

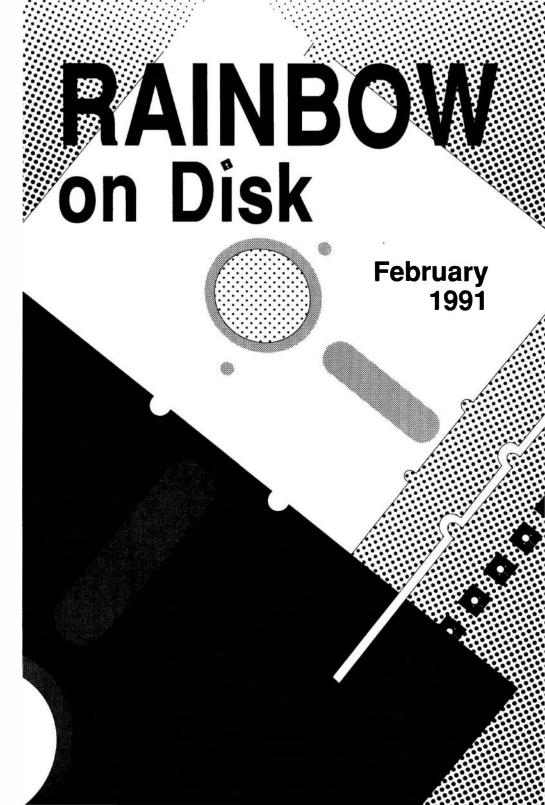
Note Writer A short program for writing quick notes and memos without loading a word processor.

**Automatic Error Entry** A short routine that causes BASIC to automatically enter Edit mode when an error is encountered.

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

**BreakPoint** A simple program to help you experiment with low-level data input from various devices

Appreciatin' Depreciation A program to help calculate yearly depreciation on equipment. A Tree Grows in OS-9 Displays the names of all the files on a disk, with graphics depicting the directory tree on a text screen.



# The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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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.

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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.

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- 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 RAINBOWON 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.
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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 February 1991 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

-	ront Side BASIC Files		k Side 9 Files
Page	Filename	read	.me.first
FEB	MENU	CMDS	Directory
014	BUDGET	Page	Filename
024	LABELS	023	read_test
029	JUMPMAN	050	Depreciate
029	LOANS	063	Tree
032	MANDEL1	SOURCE Directory	
032	MANDEL2	Page	Filename
034	* MANDEL	023	read_test.c
034	+ MANDEL	047	Depreciate.b09
038	BANK	050	Depreciate.c
040	VISFRAC3	063	Tree.asm
054	DIRSORT	065	MakeTree.b09
058	BONDCALC		
060	TIMER		
066	CHETUTOR		
085	DARTS		
090	WEIGHTS		
091	BODYMASS		
092	NOTERITE		
092	AUTOERR		

- \* Machine Language Program
- + Assembly Language Source

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# The Color Computer Monthly Magazine ON DISK

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This edition of RAINBOW ON DISK includes:

**Credits** Use this routine in your own program to create a scrolling list of credits. **Blackjack** Prepare yourself for the excitement of high-speed card playing and the loss of money (unless you're lucky).

**CoCo Data Logger** CoCoDL allows you to monitor practically anything that turns on and off more than a few times per minute, or most anything that can be connected to the joystick port.

**Visualizing Fractions 4** The latest version of Visualizing Fractions offers the next logical step in the progression — the representation of fractions as percentages.

**Ohm's Law** A handy tool for both textbook studies and the workbench for calculating resistance, current flow, voltage and power in electronic circuits. **The Assembly Line** Warp those pictures by moving some of the points to slightly different locations, twisting and warping the overall image.

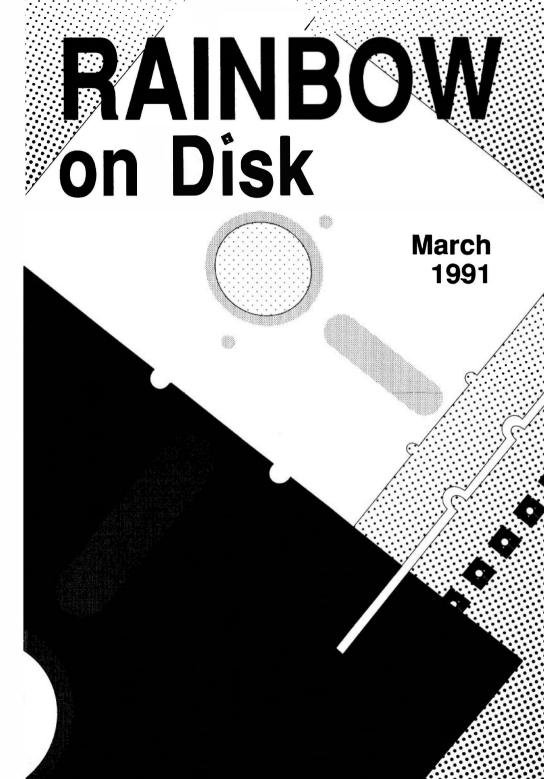
**Craps** A computer game based on the dice game of the same name. But instead of rolling the dice yourself, the computer rolls the dice for you.

**Graphics Experiments** A program to help teach you graphics programming in HSCREEN graphics modes.

The OS-9 "flip" side of this month's rainbow on disk includes:

**Sort** An in-memory sort program that is used to sort items found on single lines in a text file.

**BreakPoint** A utility that formats a specified number of disks automatically so you don't have to manually run format repeatedly.



# The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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- 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  ${\tt chd/d0}$  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  ${\tt chd/d1}$  and press ENTER.
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- One-drive system: copy /d0/cmds/filename /d0/cmds/filename -s

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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 March 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	read	.me.first
MAR	MENU	CMDS	Directory
009	CREDITS	Page	Filename
011	BLAKJACK	029	sort
018	COCODL		
020	VISFRAC4	SOURCE Directory	
043	OHMS-LAW	Page	Filename
052	WARP1	029	sort.asm
052	WARP2	030	MakeSort.b09
054	+WARP	073	auto.b09
054	* WARP		
057	CRAPS		
078	HSCR4EXP		

- \* Machine-language program
- + Assembly-language source

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# The Color Computer Monthly Magazine ON DISK

### **April 1991**

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

This edition of RAINBOW ON DISK includes:

**Resounding CoCo** Use CoCo 3 graphics to create music with this remake of *Music+*.

**Easy Come, Easy Go** A fun card game inspired by the game *Card Guppies*. **Music Test** A program designed to help budding musicians learn the lines and spaces on the treble and bass staves.

**Barden's Buffer** Let *EZ Assembler*, a screen-oriented mini-assembler for the CoCo 3, help you decide if machine-language programming is for you.

Tic-Tac A computerized version of the classic game Tic-Tac-Toe.

**Freedom** A graphics demo that creates a snake of lines that moves randomly around the screen, much like that in the arcade game *Qix*.

**Wishing Well** Fred Scerbo offers a program that helps familiarize users with checkbook skills.

**Music Grid** Creates an effect similar to the musical tones and flashing colored lights seen in *Close Encounters of the Third Kind*.

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

**BreakPoint** Greg Law gives us a handy utility that creates multiple directories and subdirectories in one pass.

Menu System A custom, no-fuss, no-hassle menuing system for Level II.



# The Color Computer Monthly Magazine ON DISK

#### 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. BASICO9 programs will only be offered in source form so they will only be found in the SOURCE directory.

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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 slde of RAINBOW ON DISK. Then type  ${\tt chd/d0}$  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  ${\tt chd/d1}$  and press ENTER.
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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 April 1991 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

	ont Side BASIC Flies		ick Side S-9 Files
Page	Filename	rea	d.me.first
APR	MENU	CMDS Directory	
015	MUSIC3+	Page	Filename
021	EASYGO	029	makedir
031	MUSICTST	SOURCE Directory	
032	EZASM	Page	Filename
050	TIC-TAC	029	makedir.c
053	FREEDOM	039	ms.b09
058	LIFESKL7	SYS	Directory
060	MUSCGRID	Page	Fiiename
		45	main.mnu

Note: You must enter POKE25,14:POKE3584,0:NEW before loading MUSIC3+.

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# The Color Computer Monthly Magazine ON DISK

## May 1991

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

This edition of RAINBOW ON DISK includes:

**Ultralace** Here are the first three files for *Ultralace*, the ultimate shoestring desktop publisher, by H. Allen Curtis.

**KnightShift** A two-player, strategy game in which the king who traps the other king on the grid wins.

**Barden's Buffer** A sample program that demonstrates how to use the *EZAs-sembler* for your own assembly-language projects.

**Doc Reader** A CoCo 3 program that lets you view and print text files quickly and easily.

**Compound Interest** A short, useful program that calculates compound interest in annual, semi-annual, monthly or daily periods.

**The Assembly Line** Create your own world with three different animals -- a play on the game of *Life*.

**Pyramid** An "easy-to-play" solitaire game. But watch out -- it's easy to get addicted to this one.

**Space Kamikaze** A shoot-'em-up arcade game where the object is to destroy as many enemy kamikaze spacecraft as possible.

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

**OS-9 File Viewer** A program that allows you to use the up and down arrow keys to scroll forward and backward through ASCII text files.



# The Color Computer Monthly Magazine ON DISK

#### 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.

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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.

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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.

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Front Side		D	I. O: 4.
Disk BASIC Files			k Side 9 Files
Page MAY 012	Filename MENU GENFMENU	read	me.first  E Directory
013	GENFONTI	<b>Page</b> 009	Filename scrolf.b09
014 017	GENFONTN KNIGHT	003	SCIOII.DOS
040	+ CLRSCN		
040 040	* CLRSCN CLRSCNDR		
050	READDOC		
055 057	COMP-INT PREDATOR		
057 057	+ PREDATOR * PREDATOR		
079	PYRAMID		
080	SPACE		

<sup>+</sup> Assembly-language source

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<sup>\*</sup> Machine-language program

# The Color Computer Monthly Magazine ON DISK

#### June 1991

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

This edition of BAINBOW ON DISK includes:

**Note Writer 2 x 40** An enhanced version of *Note Writer* that allows you to print an 80-column letter with two side-by-side, 40-column screens.

Hi-Res Art Pie A fun program that draws a pie on the screen to demonstrate artifact colors on HSCREEN4.

Car Quest A spin-off of the license plate game that prints a checklist with all 50 states.

**Slot Machine** Let Las Vegas comes to you with your very own slot machine. **BASIC+** A revolutionary evolution to CoCo 3 BASIC that provides reset protection, additional commands such as REPEAT/UNTIL, SWAP and WAIT, and wildcards that can be used with DIR.

**Ultralace**, the **Second Loop** The *Ultralace* saga continues with the Designer menu and printer dump creators.

**Barden's Buffer** Use this short machine-language program to sort the 32-column screen.

**Make or Break** Have you ever wanted to have more than the Joneses? Well now's your chance with this money-strategy game for up to four players.

The Assembly Line Create your own word-search puzzles where words are hidden in a large grid surrounded by random letters. The words can be positioned horizontally, vertically, diagonally, forward or backward.

The OS-9 "flip" side of this month's rainbow on disk includes:

**BreakPoint** Sample programs to demonstrate writing graphics functions in the C language.

**OS-9 Assembly Language** Several routines that demonstrate writing assembly-language programs and interfacing assembly-language programs with BASIC09.



# The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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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.

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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.

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Disk Page	Front Side BASIC Files Filename	OS-! read.	k Side 9 Files me.first	
JUN	MENU		Directory	
016	NOTE2X40	Page	Filename	
018	HIRESPIE	045	demo	
020	CARQUEST	049	IntAdd	
020	SLOT	050	ParamDump	
035	MKDAT			
036	MKMOD	SOURCE Directory		
036	@ RESET	Page	Filename	
036	@ FIXES	029	BColor.c	
036	@ ERROR	029	Bar.c	
036	@ CMDS	029	BoldSw.c	
037	@ UTIL	029	BoldSw1.c	
038	@ DISK	029	Reverse.c	
038	@ COPY	030	GPLoad.c	
038	@ DIR	030	GPLoad1.c	
038	CONFIG	045	first.a	
039	# SAMPLE	045	second.a	
039	TPL	045	demo.a	
039	UNLOAD	046	AsciiConv.a	
054	GENDMENU	048	RegisterDump.a	
056	GENSTR	049	AddInteger.a	
056	GENMLT	050	ParamDump.a	
057	GENMLE	050	Tester.b09	
062	SORTDRV	050	ParamTest.b09	
062	* SORT			
062	+ SORT			
065	SCREEN51			
066	MAKEBRAK			
077	WORDPUZL			
077	* WDPUZZLE			
077	+ WDPUZZLE			

<sup>+</sup> Assembly-language source

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<sup>\*</sup> Machine-language program

<sup>#</sup> This file must be saved on the BASIC+ disk in ASCII format as SAMPLE.CFG.

<sup>@</sup> These files must be saved on the BASIC+ disk in ASCII format with an extension of .DAT. The assemblylanguage source is also included on disk for these files with the exception of RESET.ASM, which appears on next month's disk.

# The Color Computer Monthly Magazine ON DISK

## **July 1991**

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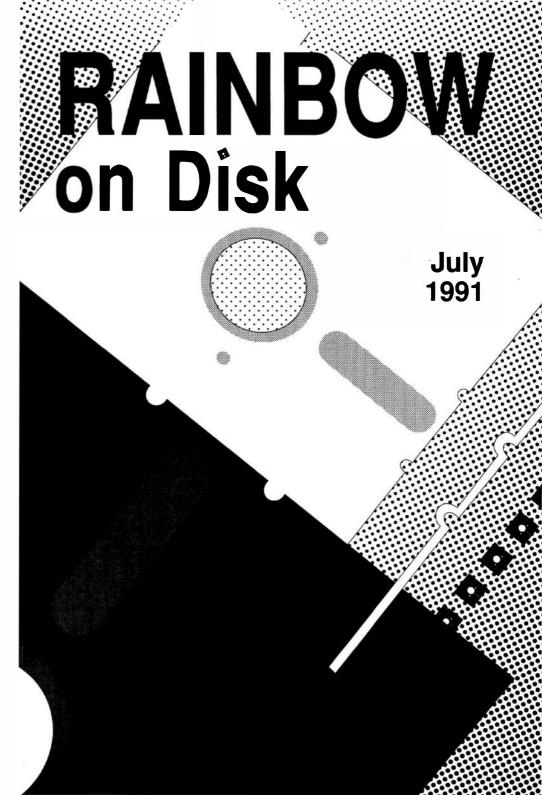
This edition of RAINBOW ON DISK includes:

**House** *House Inventory* provides a means through which you can maintain a complete inventory of your household items. Items can be listed by room, year of purchase, and original cost. The program calculates a probable cost for each item and tallies the inventory by room. Finally, it lists total cost and replacement cost for the entire house.

The Assembly Line Watch the balls fall as you read along in your study of probability and statistics.

**Ultralace** Another chapter in the *Ultralace* saga presents the completed versions of the main *Ultralace* program for both Tandy and Epson-compatible printers.

**Superdice** Welcome to *Superdice*, a takeoff on a very popular dice game. If you're tired of blasting alien spacecraft or frying creepy-crawleys squirming across your video screen, you need this change-of-pace game.



# The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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 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.

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### How Do I Get to the OS-9 Programs?

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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  ${\tt read.me.first}$  file to the screen by typing  ${\tt list}$   ${\tt read.me.first}$  and pressing  ${\tt ENTER}$ .
- 4) Entering dir will give you a directory of the os-9 side of RAINBOWON 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.
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- 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 July 1991 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

#### Front Side Disk BASIC Files

<b>Page</b> JUL	Filename MENU
015	HOUSEINV
031	PUCHINK1
031	PUCHINK2
031	* PUCHINKO
031	+ PUCHINKO
036	ULT
036	ULE
042	SUPRDICE
XXX	% RESET

- + Assembly-language source
- \* Machine-language program
- % Assembly-language source code for RESET from the June 1991 issue.

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# RAINBOW The Color Computer Monthly Magazine ON DISK

### August 1991

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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.

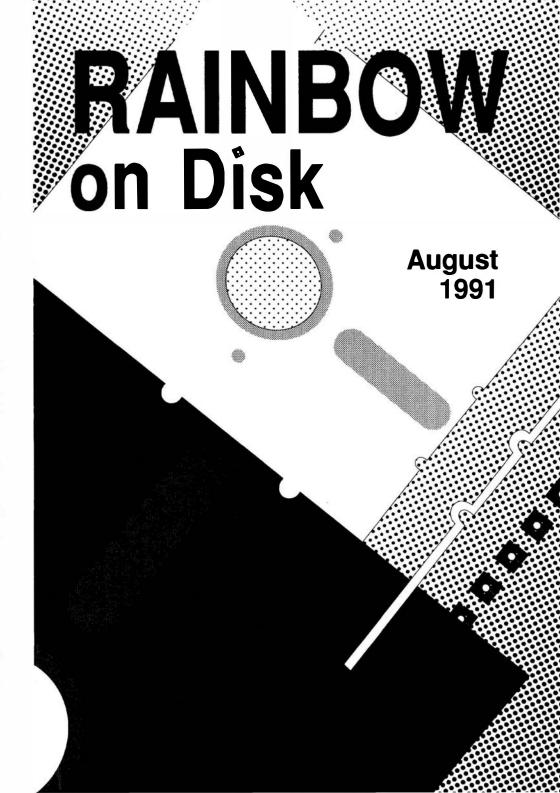
**The Assembly Line** An assembly-language technique for enlarging graphics images.

**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.



### The Color Computer Monthly Magazine ON DISK

### 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

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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.

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	ront Side BASIC Files		ck Side -9 Files
Page	Filename	read	d.me.first
AUG	MENU	CMDS	Directory
010	MKFONT	Page	Filename
013	LOADER	038	view
022	PIXTEXT4	SOURC	E Directory
023	PAL40-80	Page	Filename
023	TEXTDUMP	019	Get_ID.c
024	TAXTABLE	019	test_Get_ID.c _
034	MEGATANK	019	getpid.c
042	ENLARGE1	019	getuid.c
042	ENLARGE2	019	GBlkMp.c
043	* ENLARGE	020	GModDr.c
043	+ ENLARGE	020	test_GModDr.c
057	ULE	020	CpyMem.c
057	ULT	021	moddir.c
		028	FilePatch.b09
		029	irqpoll.asm
+ Assembly-lang	uage source	029	clock60.ptc
* Machine Jangur			•

<sup>\*</sup> Machine-language program

 $\it View 4.3$  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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The disk is specially formatted and contains both BASIC and OS-9 operating system programs.

This edition of RAINBOW ON DISK includes:

**Let CoCo Do the Grading** *Test Grader* uses BASIC string functions to make short work of grading multiple-choice tests.

The Assembly Line Look on as objects are transformed using a process known as affine transformation.

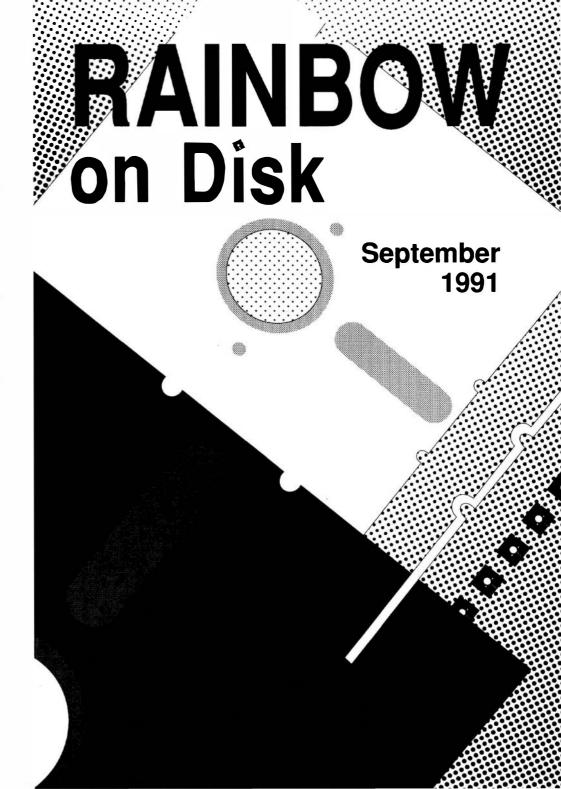
**Turn of the Screw** Use these two programs to set and read Tony DiStefano's real-time clock. Also allows you to integrate the date and time into your BASIC programs.

Name That Country A BASIC program that tests your skills as you learn to identify 192 countries around the world. Uses CoCo 3 graphics.

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

Addressed to You An easy-to-use address label maker for BASIC09.

**OS-9 Hotline** Use this short program to put your CoCo 2B into true-lowercase mode with OS-9 Level I.



### The Color Computer Monthly Magazine ON DISK

### Instructions for Use

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	nt Side		k Side
Disk BASIC Files		OS-	9 Files
Page	Filename	read.me.first	
SEP	MENU	CMDS Directory	
016	MCTEST	Page	Filename
021	AFFCOMP	050	tlcase
021	AFFINE1		
021	AFFINE2	SOURCE	E Directory
022	* AFFINE	Page	Filename
022	+ AFFINE	046	AdrLabel.b09
042	SETM	050	tlcase.b09
044	CLKGEN	050	tlcase.asm
059	COUNTRY		

<sup>+</sup> Assembly-language source

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### The Color Computer Monthly Magazine ON DISK

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This edition of RAINBOW ON DISK includes:

**Turn of the Screw** Learn as you burn with the assembly-language source code for Tony DiStefano's EPROM programmer.

Pyramid 2 A fun-to-play version of Pyramid solitaire for the CoCo 1 and 2.

**Cable TV** Create your own listing of the local cable-TV channels to tape to the back of your TV's remote control.

A Color Doodler Draw lines of any length, at any angle, and in any of 15 different colors, anywhere on the screen.

**Vocabulary Aid** Use this hands-on approach to learn correct word spellings and definitions.

Indians A graphics/music program that plays the song "Ten Little Indians."

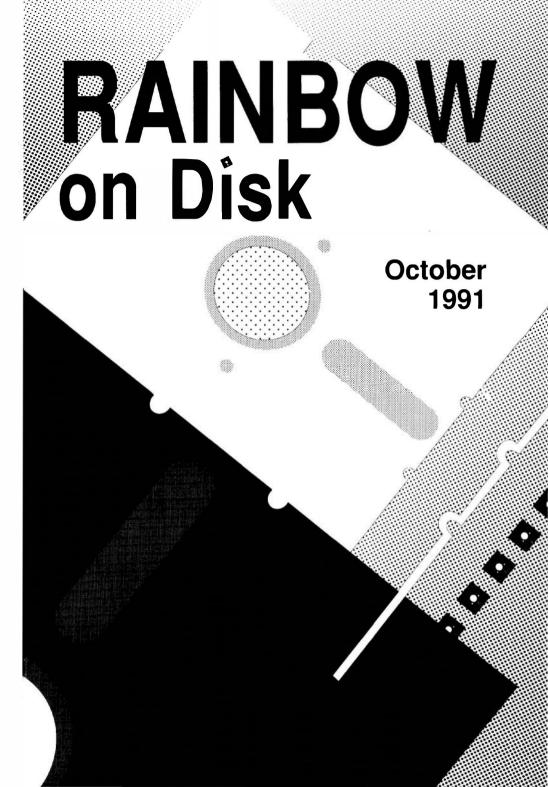
The Assembly Line Drop a pebble and watch the waves.

**Music Tutor** Use this teaching utility to learn notes on the musical staff and the keys on an organ.

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

**Making the Move** Use Bob Santy's *RSDOS* utility to transfer files between Disk BASIC and OS-9 disks.

Easy Display An enhanced OS-9 display command that accepts decimals.



### The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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Page	Filename	read.me.first	
OCT	MENU	CMDS	Directory
019	+EPROM	Page	Filename
026	PYRAMID2	048	Display
036	CABLETV	SOURC	E Directory
037	CLRDUDLR	Page	Filename
038	VOCABLRY	048	Display.asm*
040	INDIANS	050	MakeDisplay.b09
045	WAVES1		
046	WAVES2	The files for	rsdos, <b>as discussed</b> in
046	* WAVES	Tim Kientzle	e's article "Making the
046	+WAVES		provided on RAINBOW
060	NOTETUTR		rtesy of Bob Santy. List
	language program y-language source	the RSDOS.d directory to	loc file in the RSDOS/DOC learn more about this le-transfer utility.

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This edition of RAINBOW ON DISK includes:

**The Assembly Line** *Life* is a classic computer game; nobody wins, nobody loses — it's just fun to watch.

File Finder A program that gives you a quick and easy method of determining whether or not a file is on disk.

**Echo** Rember those electronic games that tested your ability to repeat sequences of lights and sounds? *Echo* reproduces all the excitement (and frustration) on the CoCo.

**CoCo-Dot** A fun and entertaining game for children of all ages. Simply connect the dots to draw a picture.

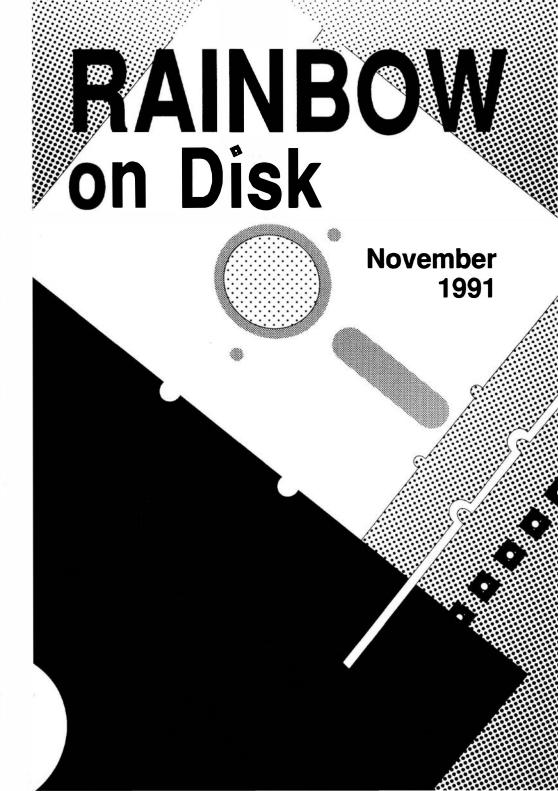
**Tape-to-Tape ML** A handy utility for copying machine-language files from one tape to another.

**Egg Timer** A CoCo 3 program that can be used to time any one-, two- or three-minute game or other imprecise event.

**Badge Master** Let the CoCo keep track of awards earned by members of your organization.

The OS-9 "flip" side of this month's rainbow on disk includes:

**Communicating with OS-9** Share the fun of going online with *SuperComm 2.1a*, a Level II terminal program provided here with the permission of Dave Philipsen.



### The Color Computer Monthly Magazine ON DISK

#### 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. BASICIO 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 November 1991 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side Disk BASIC Files		
Page	Filename	
NOV	MENU	
020	LIFEDRVR	
020	* LIFE	
020	+LIFE	
027	<b>FILEFNDR</b>	
027	ECHO	
028	COCODOT	
029	COPYML	
029	<b>EGGTIMER</b>	
047	BADGE	

<sup>+</sup> Assembly-language source

Back Side OS-9 Files read.me.first

022 - SuperComm

CMDS Directory
Page Filename
022 SuperComm

SuperComm 2.1a is provided here with the permission of Dave Philipsen. List the SuperComm. doc file in the root directory to learn more about this shareware terminal program for OS-9 Level II.

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<sup>\*</sup> Machine-language program

### The Color Computer Monthly Magazine ON DISK

#### December 1991

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

This edition of RAINBOW ON DISK includes:

**Press Continue** Make the ordinary a little more exciting; use this subroutine to add pizazz to screen pauses.

**File Size** Don't believe Disk BASIC's little lie — let *File Size* calculate the exact size of your files.

**PMODE 4 Snapshot** Save selected portions of PMODE 4 graphics images to tape or disk.

**Improved Directory** IDIR modifies the CoCo 3 directory listing so it includes the total number of files on the disk as well as the number of granules occupied.

Peggity A challenging one-player game for the CoCo 3. Test your wit and skill!

**Palette Tints** *Tintpal* displays groups of similar colors, making it easier to decide which shade you want to use in your graphics creations.

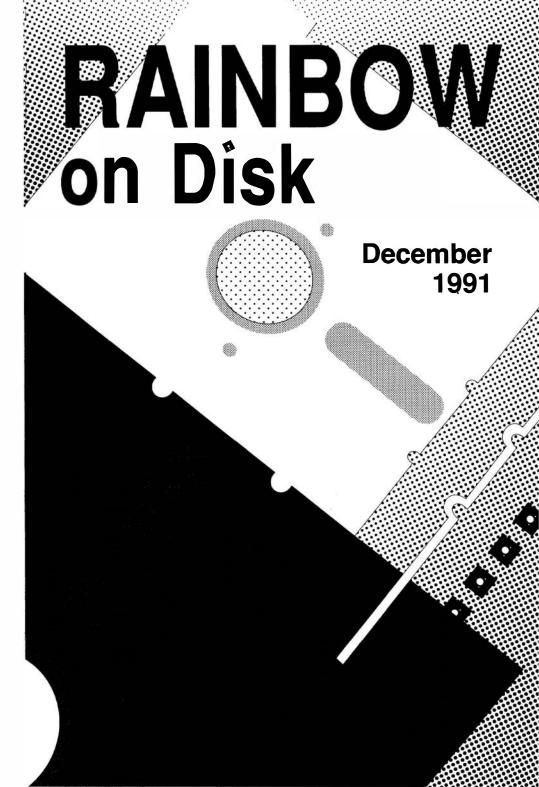
**Sound Generator** Build new sounds and sound effects with the Color Computer. You can even add your creations to BASIC programs.

**Pirate's Treasure** Search the world for hidden treasure with this text-based adventure game.

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

**Spicy Dice** Take the OS-9 road to the glamour, glitter and gamble of Las Vegas with this simple dice game for Level II.

**BreakPoint** Use the *Procedure Generator* to turn those exectuable binary programs into BASIC09 programs that use data statements to re-create the original file.



### The Color Computer Monthly Magazine ON DISK

#### 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.

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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. BASICO9 programs will only be offered in source form so they will only be found in the SOURCE directory.

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- 1) Type load dir list copy and press ENTER.
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- 3) List the  ${\tt read.me.first}$  file to the screen by typing  ${\tt list}$   ${\tt read.me.first}$  and  ${\tt pressing}$   ${\tt ENTER.}$
- 4) Entering  $\mathtt{dir}$  will give you a directory of the os-9 side of RAINBOW ONDISK. To see what programs are in the CMDS directory, enter  $\mathtt{dir}$  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 December 1991 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

	ont Side BASIC Files		nck Side 6-9 Files
Page	Filename	read.me.first	
DEC	MENU		
020	PRESCONT	SOUR	CE Directory
020	FILESIZE	Page	Filename
021	PM4PTSCR	015	Dice Game.b09
021	IDIR	040	ProcGen.b09
022	PEGGITY		
025	TINTPAL		
030	SOUNDGEN		
047	DEMON		

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### The Color Computer Monthly Magazine

### **ON DISK**

### January 1992

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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.



### The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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### 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. BASICO9 programs will only be offered in source form so they will only be found in the SOURCE directory.

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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.

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- 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 emds. 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:

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Fro	nt Side	Bac	k Side
Disk BASIC Files		OS-9	9 Files
Page	Filename	read.me.first	
JAN	MENU	ar.	man
021	MILLDRV	se	p.hlp
021	* MILL	CMDS	Directory
021	+ MILL	Page	Filename
027	DIRECT	11	UnTC
039	XMASHOME	10	ar
039	POKETEXT	SOURCE	Directory
040	DISKTABL	Page	Filename
040	DESPACE	011	UnTC.c
040	SCREEN	034	sep.b09
041	CHKDSK		
042	CAMERA	* Machine-language	
042	NUMBERS	+ Assembly-languag	e source file
010	* TC12	# ASCII documentati	ion file
010	* TC3		
010	* TC31	Special thanks to Joh	nn Lauro, author of TC,
010	# TC12	and Carl Krieder, aut	hor of ar, for their per-
010	# TC3		le-archive/compression
010	# TC31		nth's RAINBOW ON DISK.
		And remember, plea	ise register shareware
		you use.	

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### The Color Computer Monthly Magazine ON DISK

### February 1992

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

This edition of RAINBOW ON DISK includes:

**Versabase** A CoCo 3 information-filing system that uses modules to meet many different database needs. Included on this disk are complete filing programs for video tapes, addresses, compact discs, photos and medical records.

**The Assembly Line** *Zig-Zag* lets you create repeating patterns and teaches you aspects of assembly language at the same time.

Logic Puzzler Test your logic skills with this easy-to-use logic puzzle creator.

Sine Lines 3 A CoCo 3 remake of an older CoCo "random-graphics" program.

**CoCo Hangman** A, b, c and you're out — but maybe not — with this CoCo 3 version of the popular children's game.

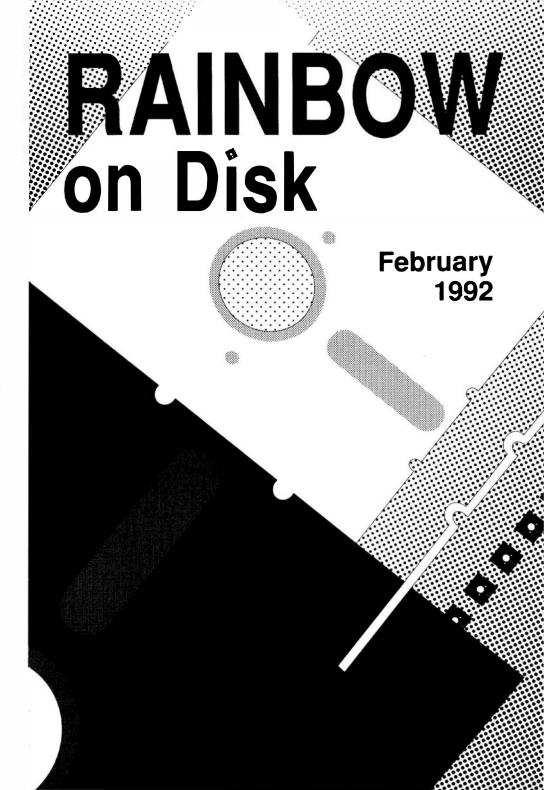
**Pre-fab Arkitekt** Use four basic building blocks to "design" your own structures.

**Pop-Up Menus** Learn how to use pop-up menus in your own BASIC programs.

**Serial Communications** DANTERM is the software portion of a system that helps you achieve reliable host operation through the Coco 3's serial port.

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

**BreakPoint** This new version of Greg Law's makedir command automatically puts new directory names in uppercase.



### The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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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 February 1992 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

	ont Side BASIC Files		Back Side OS-9 Files
Page	Filename		read.me.first
JAN	MENU		
012	VCRDATA	C	CMDS Directory
014	ADDRESS	Pa	ige Filename
015	COMPACT	018	8 makedir
016	PHOTOS		
016	MEDICINE	SO	DURCE Directory
021	ZIGZAGDR	Pa	ige Filename
021	* ZIGZAG	018	8 makedir.c
021	+ ZIGZAG		
024	LOGIC		
032	SINLINE3		
032	COCOHANG		
034	ARKITEKT		
035	POPUPMEN		
038	* DANTERM		
038	+ DANTERM		
040	DANTERMB		

- \* Machine-language program
- + Assembly-language source file

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### The Color Computer Monthly Magazine ON DISK

### **March 1992**

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

This edition of RAINBOW ON DISK includes:

**Word Finder** Use the CoCo 3 to find difficult words in word-search puzzles.

**Boot BASIC With DOS** Now you can enter the simple DOS command to boot BASIC programs. This two-program package sets it up for you.

**Recipe Filer II** This "full-screen" recipe editor for the CoCo 3 helps you organize your delectable delights.

**The Wizard** Play this checkers-like game and protect your castle from the powerful wizard.

**Master List** A feature-packed filing system that tracks personal addresses — or modify it for other tasks. You can add records, edit, sort, search and more. Requires at least 64K and one disk drive.

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

**File Finder** Locate lost files on floppy disk or hard drive with this spiffy utility by Stephen Goldberg.

# RAINBO on Disk March 1992

### The Color Computer Monthly Magazine ON DISK

#### 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. BASICO9 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.
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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 March 1992 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

k Side 9 Files		nt Side ASIC Files	
me.first	read.n	Filename	Page
		MENU	MAR
Directory	CMDS D	WORDFIND	006
Filename	Page	AUTOBOOT	010
Find	028	BOOTDATA	010
		RECIPE2	014
Directory	SOURCE	WIZARD	015
Filename	Page	MLDATA	024
Find.asm	028	воот	025
		MLIST	025

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### The Color Computer Monthly Magazine ON DISK

### **April 1992**

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

This edition of RAINBOW ON DISK includes:

**EW Spider** Encourage younger users with graphics and music in this "rainy day" children's favorite.

**Variable Stars** This short CoCo 3 program draws stars with a variable number of points.

**EZ Disassembler** A complement to Bill Barden's EZASM, EZDASM can be used to disassemble machine-language programs in memory.

**Directory Shortcut** A demo program showing how easy it is to achieve multi-column directories with the CoCo 3.

**Program Launcher** Get started the easy way — this stand-alone program provides a menu from which you can execute other disk-based BASIC programs.

Patriot Command Enjoy hot desert warfare with this arcade-style game in which you command the missiles.

**Sideways Printer** Spreadsheet too wide to print on standard paper? No problem. Use *Sideways* to turn it on end. Works with any ASCII text file.

**Test Your Luck** Though it should be called "Test Your Reflexes." Try to win the big bucks as the CoCo 3 flashes messages onscreen.

**Gone Fishin'** This graphics quickie for the CoCo 3 shows you some real computer anim(al)ation.

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

**Salvage** Rather than carry out the trash, let the CoCo help you clean up the mess. *Salvage* is designed to copy files that reside on damaged disk sectors, allowing you to recover most of the original file.



### The Color Computer Monthly Magazine ON DISK

### Instructions for Use

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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.

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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 April 1992 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

	ont Side BASIC Files		k Side 9 Files
Page	Filename	read.me.first	
APR	MENU		
004	EWSPIDER	CMDS	Directory
800	VARISTAR	Page	Filename
800	EZDASM	018	salvage
800	* EZDASM		
010	SHORTCUT	SOURC	E Directory
017	LAUNCHER	Page	Filename
020	PATRIOT	018	salvage.asm
024	SIDEWAYS	018	makesalvage.b09
025	BITTEST		
025	* BITTEST		
025	TESTLUCK		
027	FISHIN		

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### The Color Computer Monthly Magazine ON DISK

### May 1992

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

This edition of RAINBOW ON DISK includes:

**AutoGray** A CoCo 3 HSCREEN dump that supports printing eleven different gray levels.

**PMODE Screen Dumps** Fast machine-language programs that dump PMODE images to Tandy and IBM/Epson printers.

**Swap Around** A CoCo3 game to challenge your critical thinking skills; written by George and Ellen Aftamonow.

**Ultralace Update & Upgrade** An ASCII "merge" file with fixes and upgrades for *Ultralace* by H. Allen Curtis. Also included is a program that enables you to use your own artwork in *Ultralace* publications.

**Season Racer** Race through the four seasons in your own Formula One Color Computer 3.

**Disk Identification** A program that gives you all the nitty gritty info about the files on your disks.

**Title Screens** Use this demo for ideas when designing title screens for your programming creations.

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

Vname Change disk volume names on the fly; written by Stephen Goldberg.

**Transliterate** Three versions of a program that changes characters in OS-9 disk files; written by Greg Law and discussed in "BreakPoint."



### The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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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.

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Fro	ont Side	Bacl	< Side
Disk BASIC Files		OS-9	Files
Page	Filename	read.	me.first
MAY	MENU		
004	AUTOGRAY	CMDS I	Directory
012	* TANDUMP	Page	Filename
012	+TANDUMP	006	Vname
014	* IBMDUMP	022	trs
014	+ IBMDUMP	022	trb
015	TANDUMPB	023	tr
015	IBMDUMPB		
017	SWAP	SOURCE	Directory
020	ALTUL	Page	Filename
020	ARTWORK	006	Vname.asm
028	SRACER	007	Makevname.b09
029	ID	022	trs.c
030	TITLES	022	trb.c
		023	tr.c

- \* Machine-language program
- + Assembly-language source code

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This edition of RAINBOW ON DISK includes:

**Card-Player's Sort** A demo program that shows a handy technique for sorting data.

**Star Grabber** This two-player arcade game is sure to cause more than a few spats — all in fun, of course!

Around the World A music/graphics demo that's really out of this world.

PRINT@ Converter Use this utility to change PRINT@ statements to LOCATE statements for the CoCo 3 Hi-Res screens.

**Matchmaker** Need to match people in pairs? Let *Matchmaker* handle the task for you.

CLS Routines Machine-language modifications for the CLS command in the CoCo 3. You can scroll, stack and fade text from the screen.

**Beat the Bomb** Say you're good at word-scramble games? We hope you don't get too big of a "bang" out of this one.

Bar Graph Printer Print simple bar graphs quickly and easily with this short program.

**Screen Expander** Use this ML graphics utility to expand the Hi-Res screens on the CoCo 3 to 320 (or 640) by 192 pixels and 40 (or 80) by 27 lines of text. **CoCo Purchase Orders** *CoCoPO* takes some of the hassle out of ordering by mail, giving you a neat record of your order.

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

**Pretty** Tired of adding spaces to your OS-9 assembly-language listings to clean them up? *Pretty*, by Stephen Goldberg, will columnarize them for you.



### The Color Computer Monthly Magazine ON DISK

### Instructions for Use

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	ont Side ASIC Files		k Side 9 Files
Page	Filename	read.me.first	
JUN	MENU		
006	CARDSORT	CMDS	Directory
011	STARGRAB	Page	Filename
012	INORBIT	800	Pretty
015	CONVERT		
016	MATCHMAK	SOURCI	E Directory
018	* SNAKE	Page	Filename
018	+ SNAKE	008	Pretty.asm
018	* STACKER	009	Makepretty.b09
018	+STACKER		
018	* FADER		
018	+ FADER		
022	BEATBOMB		
024	BARGRAPH		
024	* EXPANDER		
024	+ EXPANDER		
030	COCOPO		

- \* Machine-language program
- + Assembly-language source code

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### The Color Computer Monthly Magazine ON DISK

### **July 1992**

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

This edition of RAINBOW ON DISK includes:

**Base Converter** A CoCo 3 program that makes easy work of converting numbers between decimal, hexadecimal and binary.

File Peeker Discover what's in your disk files with this handy utility.

**Intersection** A game of skill in which you try to locate the intersection of two lines. Sounds easy, doesn't it?

**128K Backup** Copy disks on single-drive systems with fewer swaps. A machine-language utility for the Coco 3.

**Electronic File Cabinet** Designed to help you track personal or small business inventories, this program works on any 16K Extended CoCo.

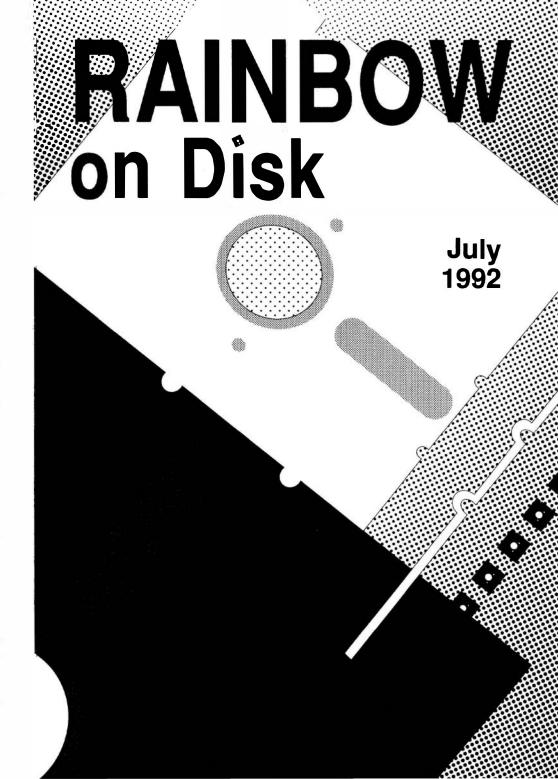
**Disk Master** Become the master of your disk system with this professional-looking CoCo 3 utility.

**Number Crunch** Beat the clock as you try to gobble up as many numbers as possible.

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

**Rep** Repeat OS-9 commands the easy way with this utility by Stephen Goldberg. Allows repeated action on multiple files and supports input redirection.

**Skip a Line** A handy utility for double-space printing of OS-9 text files and BASIC09 listings.



### The Color Computer Monthly Magazine ON DISK

### 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. BASICO9 programs will only be offered in source form so they will only be found in the SOURCE directory.

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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.
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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 July 1992 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

	nt Side	Ва	ck Side
Disk B	ASIC Files	OS	-9 Files
Page	Filename	read	d.me.first
JUĽ	MENU		
004	CONVERT	CMDS	Directory
004	FILEPEEK	Page	Filename
006	INTRSECT	012	Rep
010	BACKUP		
014	ECABINET	SOURC	E Directory
020	DMASTER	Page	Filename
023	STRDMOD3	012	Rep.asm
024	NCRUNCH	013	MakeRep.b09
		022	skip.b09

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### August 1992

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

This edition of RAINBOW ON DISK includes:

**Grocery Shopping** Let the CoCo help you track your home grocery inventory and create shopping lists for your trips to the store.

**Easy Forms** Need to build a custom form? This CoCo 3 program, designed for use with Tandy DMP printers, can help.

**Quickie Editor** Write short reminders and make note-taking simple with this CoCo 3 program.

**Key Frames** Discover the world of computer animation with this demo program — it works with any CoCo with at least 16K and Extended BASIC.

**CoCo 3 Artifacting** If you want to see 256 apparent colors on one screen, artifacting using the techniques in COLOR256 may be for you.

Disk Sorter Get your disk files in order with this handy utility.

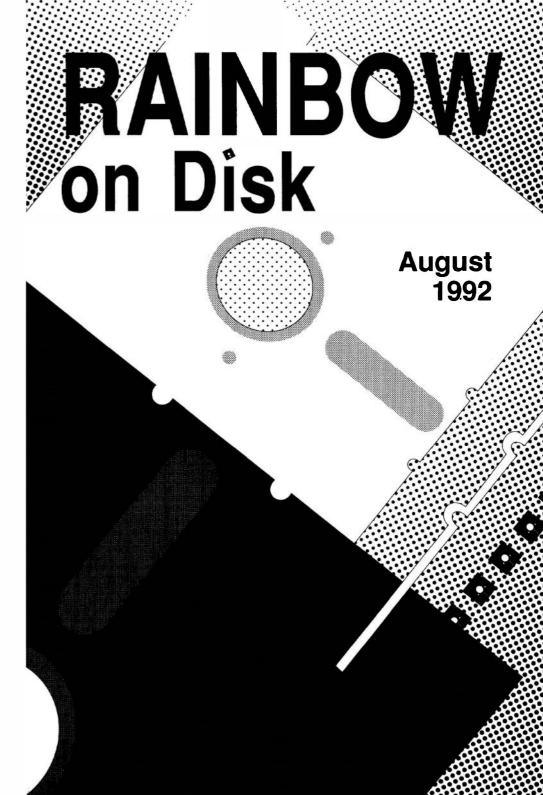
**Animation Show** These programs use screen flipping on PMODE screens to show how you can create animated sequences.

**The Right Location** Use PRINTAT, a programmers tool, to help determine just where you want messages appearing onscreen.

Care Packages Postal Care prints warning labels for use on disk and tape packages you plan to send through the mail.

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

**Key Frames** A demo program in C, showing the effect of using key-frame interpolation for graphics animation.



### The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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- 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 ONDISK. Then type <code>chd/d0</code> and press <code>ENTER</code>. If you have two disk drives, leave the system master in Drive 0 and put the RAINBOW ON DISK in Drive 1. Then type <code>chd/d1</code> and press <code>ENTER</code>.
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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.

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Front Side Disk BASIC Files		Back Side OS-9 Files	
Page	Filename	read.me.first	
AUG	MENU		
004	GROCERY	CMDS I	Directory
800	FORMS	Page	Filename
011	ED	013	Keyf
013	KEYF		-
015	COLOR256	SOURCE Directory	
020	DISKSORT	Page	Filename
022	* ANIM	013	Keyf.c
022	+ ANIM	012	Wind4
024	ANIMDRAW		
024	ANIMSHOW		
024	PRINTAT		
025	POSTCARE		

- \* Machine-language program
- + Assembly-language source code

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### The Color Computer Monthly Magazine ON DISK

### September 1992

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This edition of RAINBOW ON DISK includes:

**Equation Solver** Written by students, for use by students — solves several different forms of algebra equations.

**Print Hex Charts** Print a handy decimal/hexadecimal conversion chart and place it by your CoCo for quick reference.

**Letter Scramble** Try to guess the three characters the computer has picked. You've got only 20 guesses, so be careful.

**Climb to the Top** A unique game by George and Ellen Aftamonow in which you try to rearrange colored playing pieces to score points.

**Make Disk Jackets** A useful way to keep track of which program is on which disk — create disk jackets with printed directories on them.

**Math Driller** If you have a need for repetitive fundamental math problems, this program is the way to go.

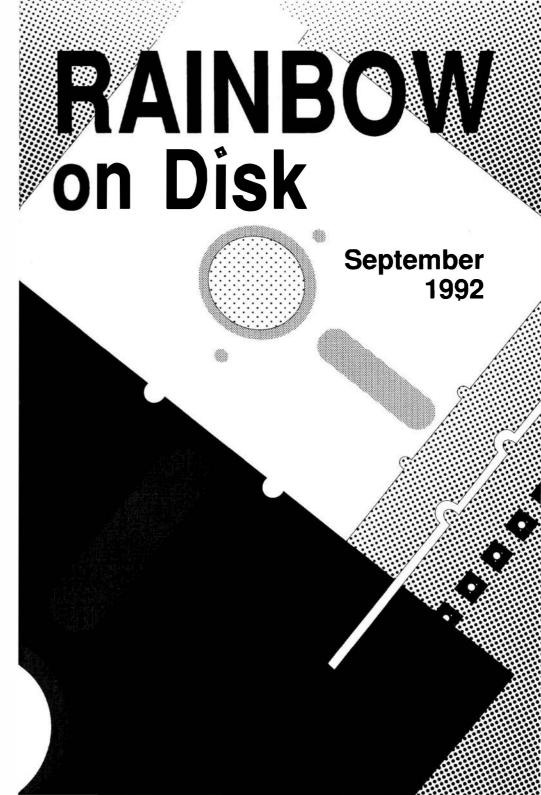
Roots Determine roots of algebraic equations graphically.

**Function Grapher** Let your CoCo draw your math functions for you with a little help from this educational program.

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

**Count** A Unix-like utility for OS-9 that counts lines, words and characters in text files. Written by Stephen Goldberg.

**BASIC09 Save Procedure** A BASIC09 utility that allows you to save single modules from memory to disk.



### The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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Fro	nt Side	Bac	k Side
Disk BASIC Files		OS-9 Files	
Page	Filename	read.	me.first
SEP	MENU		
002	EQUATION	CMDS Directory	
004	HEXCHART	Page	Filename
004	SCRAMBLE	006	Count
012	UPTOP		
013	DJACKET	SOURCE Directory	
013	DRILLER	Page	Filename
018	BASROOTS	006	Count.asm
018	ROOTS	009	MakeCount.b09
018	* ROOTS	023	bsave
018	+ ROOTS		
022	GRAPHIT		

<sup>\*</sup> Machine-language program

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<sup>+</sup> Assembly-language source code

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### October 1992

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This edition of RAINBOW ON DISK includes:

**BASIC Animator** A demonstration program that illustrates smooth and fast animation using BASIC.

**Automobile Repair Log** Another filing program from the *Versabase* series, *Carlog* helps you stay on the road.

**Directory Saver** Store disk directories as ASCII files for later perusal using a word processor.

**Outerspace Cleanup** If you like dodging asteroids while picking up "treasures," *Interplanetary Trash Collector* is for you. It's also useful for garbage-truck drivers who need to practice pothole avoidance.

See What You Delete This little utility alters the EDIT command so you can see which characters you are deleting. It also gives you a more versatile RESTORE command.

**Headers** Use these headers at the beginning of the programs you enter from THE RAINBOW and you'll never again forget which issues they appeared in.

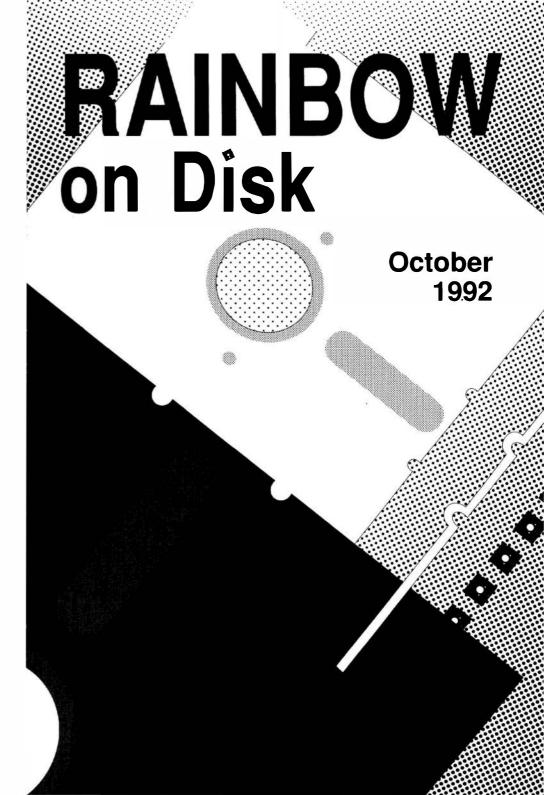
**ASCII Artist** An easy to use "screen" editor that allows you to place ASCII characters in any screen position and print the result. Great for doodling with ASCII characters!

**Molecular Mass** Chemistry students can use this simple program to determine the total mass of the molecules they study.

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

**Directory Sorter** A BASIC09 utility for sorting disk directories under OS-9.

**BBS9** A full-featured database for keeping track of the online information systems and BBSs you contact. Written in C by Phil Scherer.



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Front S Disk BAS			k Side 9 Files
Page	Filename	read.	me.first
OCT	MENU		
003	ISPIN	CMDS Directory	
006	CARLOG	Page	Filename
006	DIRSAVER	018	bbs9
010	IPTRASH		
012	FIXEDIT	SOURCE Directory	
012	HEADER12	Page	Filename
012	HEADER3	004	SortDir.b09
013	CLIPBORD	018	bbstop.c
016	MOLEMASS	018	bbssearch.c
		020	bbsen_del.c
		022	bbsdis_ch.c

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### The Color Computer Monthly Magazine ON DISK

#### November 1992

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

This edition of RAINBOW ON DISK includes:

**Password Protection** "Lock" the CoCo when you must step away for a moment. Without the correct password, others can't use your machine.

**Minefield** A challenging strategy game in which you use logical thinking to predict where the hidden bombs are located — the shorter the time, the better your score.

XDRAW A quick demo illustrating the use of queues for programming.

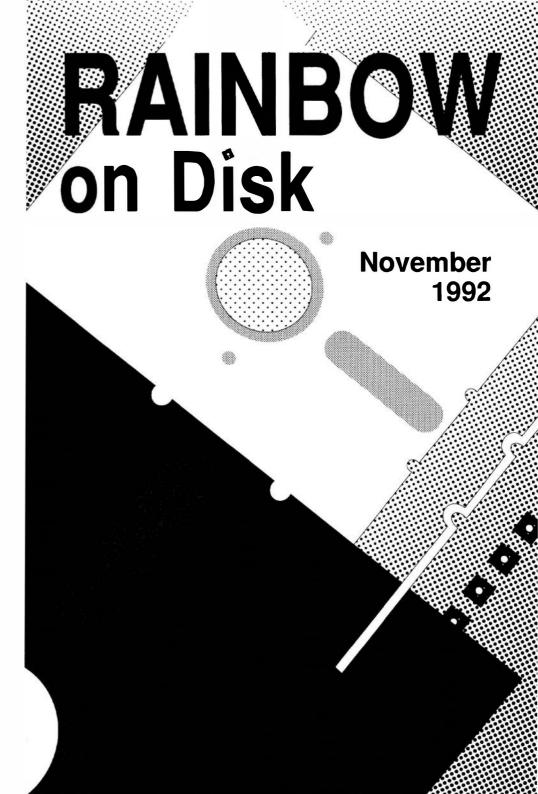
**CoCo Goes Buggy** Create your own computerized bug zapper with this machine-language program by William Nee.

**CoCo Phone Book** An easy-to-use database for storing phone numbers and addresses for family, friends and business acquaintances.

**Celsius Converter** This simple BASIC program can be used to convert Celsius temperature readings to the Fahrenheit scale and vice versa.

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

**Echo** A new version of the OS-9 echo command, offering improved control of screen output.



### The Color Computer Monthly Magazine ON DISK

#### Instructions for Use

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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. BASICO9 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 ONDISK. 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 November 1992 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

	nt Side ASIC Files	Back OS-9	
Page	Filename	read.n	ne.first
NOV	MENU		
004	* PASSWORD	CMDS Directory	
004	+ PASSWORD	Page	Filename
004	PASSWORD	020	echo
006	MINFIELD		
800	XDRAW	SOURCE Directory	
014	BUGDRIVE	Page	Filename
014	* BUGS	020	echo.src
014	+ BUGS	021	makeecho.b09
016	COCOFONE		
020	CELSIUS		

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### The Color Computer Monthly Magazine ON DISK

### December 1992

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

This edition of RAINBOW ON DISK includes:

**Bingo Cards** Print your own Bingo cards (four to a page) with this easy-to-use Color Computer program.

**Triangulation** Discover the world of Chaos, and see how random numbers can be used to generate finite shapes.

**Get on Target** Target practice in the winter? *Phaser Range* can do it, with a little help from the CoCo.

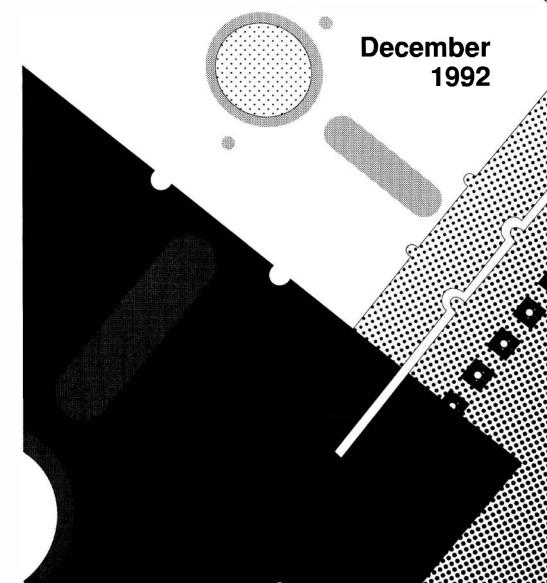
**Grid War** Sink a battleship or two with this "board" game for the CoCo 3. You can almost smell the cordite.

**Bytes** We often take these little creatures for granted. Now take a look at how they work.

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

**Snow Flakes** A BASIC09 routine that draws random snowflakes onscreen. Better yet, it can be set up as a screen saver.

# RAINBOW on Disk



### The Color Computer Monthly Magazine ON DISK

### 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. BASICO9 programs will only be offered in source form so they will only be found in the SOURCE directory.

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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.
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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 RAINBOWON DISK, refer to the December 1992 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

	nt Side ASIC Files		ck Side 6-9 Files
Page	Filename	read.me.first	
DEC	MENU		
004	BINGOCRD	SOURCE Directory	
006	TRIANGLE	Page	Filename
006	PHASER	011	Flake Maker.b09
010	GRIDWAR	012	Flakes.b09
016	BYTES	012	Makelcon.b09
		012	AIF.flk

Bonus Program: Bill Budenholzer sent us a little present for the Holidays, and we're passing it on to you with his permission. The program requires OS-9 Level II and can be found in the XMASBALL discourage of this disk. Short operating instructions are provided in the read.me.file in the root directory of the disk.

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### The Color Computer Monthly Magazine ON DISK

### January 1993

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

This edition of RAINBOW ON DISK includes:

**Gopher Smash** Prepare for the upcoming lawn season and practice dealing with these pesky little critters.

**Prompt Improvement** Add a little more usefulness to the OK prompt. This short utility displays the current drive number and amount of free memory.

**Compressed HSCREENs** CMPSAVE and CMPLOAD let you save and load HSCREEN images to disk in compressed form — a real space saver for those with a lot of graphics images.

**Disk Defragmentor** Speed file access by rewriting disks so files are stored in consecutive granules.

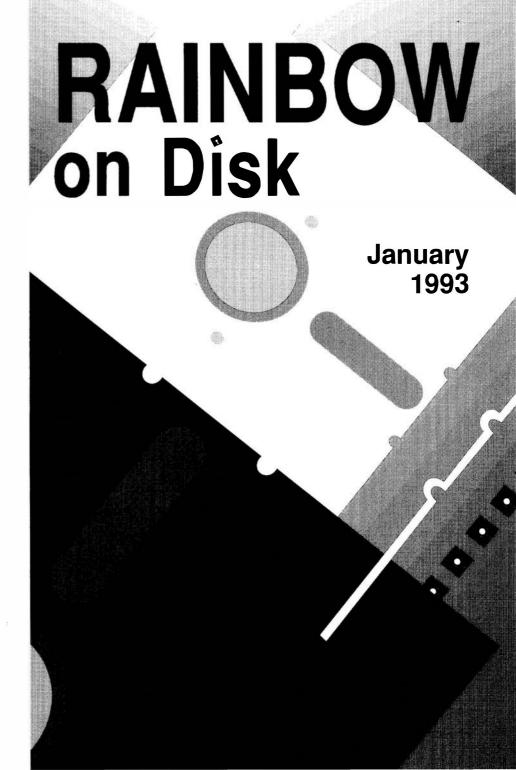
**Darn It** A challenging (and sometimes very frustrating) solitaire game for the CoCo 3.

**Screen Saver** Add this subroutine to your BASIC programs to help prevent the possibility of "burning" your monitor screen.

**Another CLS Routine** NEWCLS gives you a unique way to clear the 32-column screen.

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

**Sendcode** Send control codes to your printer, screen and other OS-9 devices the easy way with this handy utility.



### The Color Computer Monthly Magazine ON DISK

### 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. BASICO9 programs will only be offered in source form so they will only be found in the SOURCE directory.

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- 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.
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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 1993 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

	nt Side ASIC Files		k Side 9 Files
Page	Filename	read.	me.first
JAN	MENU		
004	SMASH	CMDS Directory	
004	PROMPT	Page	Filename
005	CMPSAVE	17	Sendcode
005	CMPLOAD		
800	DISKFRAG	<b>SOURCE Directory</b>	
010	DARNIT	Page	Filename
011	SSAVER	017	Sendcode.c
019	NEWCLS	017	printer.code
		017	screen.code

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### The Color Computer Monthly Magazine ON DISK

### **March 1993**

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

This edition of RAINBOW ON DISK includes:

**Joystick Tester** Make sure your joysticks are alive and well with this short BASIC program.

**Fast GET/PUT Operations** *Skipper* shows you how faster GET/PUT operations can really enhance your animation routines.

**Alphabet Unscrambler** A game that helps young children get a handle on their ABCs.

**Old Glory** Draw a perfect rendition of the American flag using your CoCo 3 and color monitor.

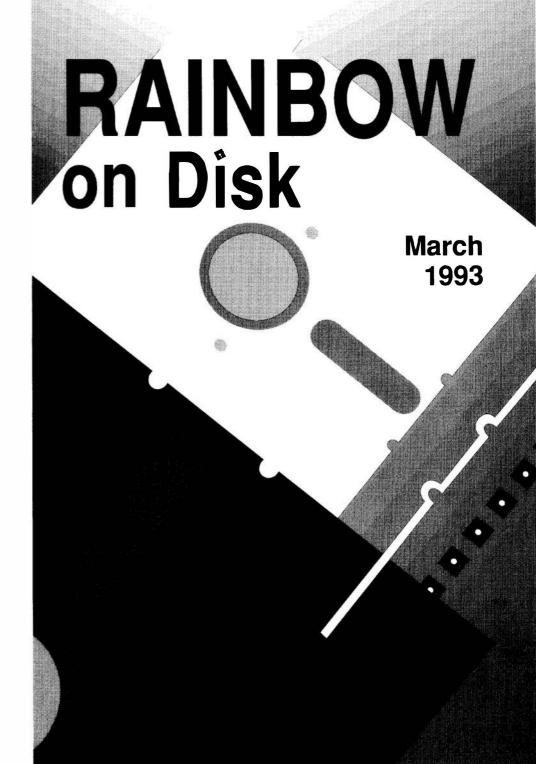
**VEF for Disk BASIC** Load and save graphics images using the standardized VEF format — under Disk BASIC.

**Go for Twenty-One** A quickie game in which you try to score 21 or better by stopping the numbered dial in the right places.

**Calendar** Check past and future dates with this CoCo 3 program — just enter the month and year and a calendar is displayed.

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

**Modify Window Descriptors** Three simple procedure files for OS-9 Level II show how easy it is to modify windows temporarily or permanently.



### The Color Computer Monthly Magazine ON DISK

#### 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.

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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 March 1993 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

	ront Side BASIC Files		k Side 9 Files
Page	Filename	read.	me.first
MAR	MENU		
003	JOYTEST	SOURCE	Directory
003	SKIPPER	Page	Filename
800	ALPHABET	006	changew5
009	OLDGLORY	006	changew4
011	VEFIT	006	changew8
012	TWENTY1		_
015	CALENDAR		

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