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A Second Look  
**MACINTOSH**  
The Machine and Its Software

# FAMILY COMPUTING

2<sup>ND</sup> ANNIVERSARY ISSUE

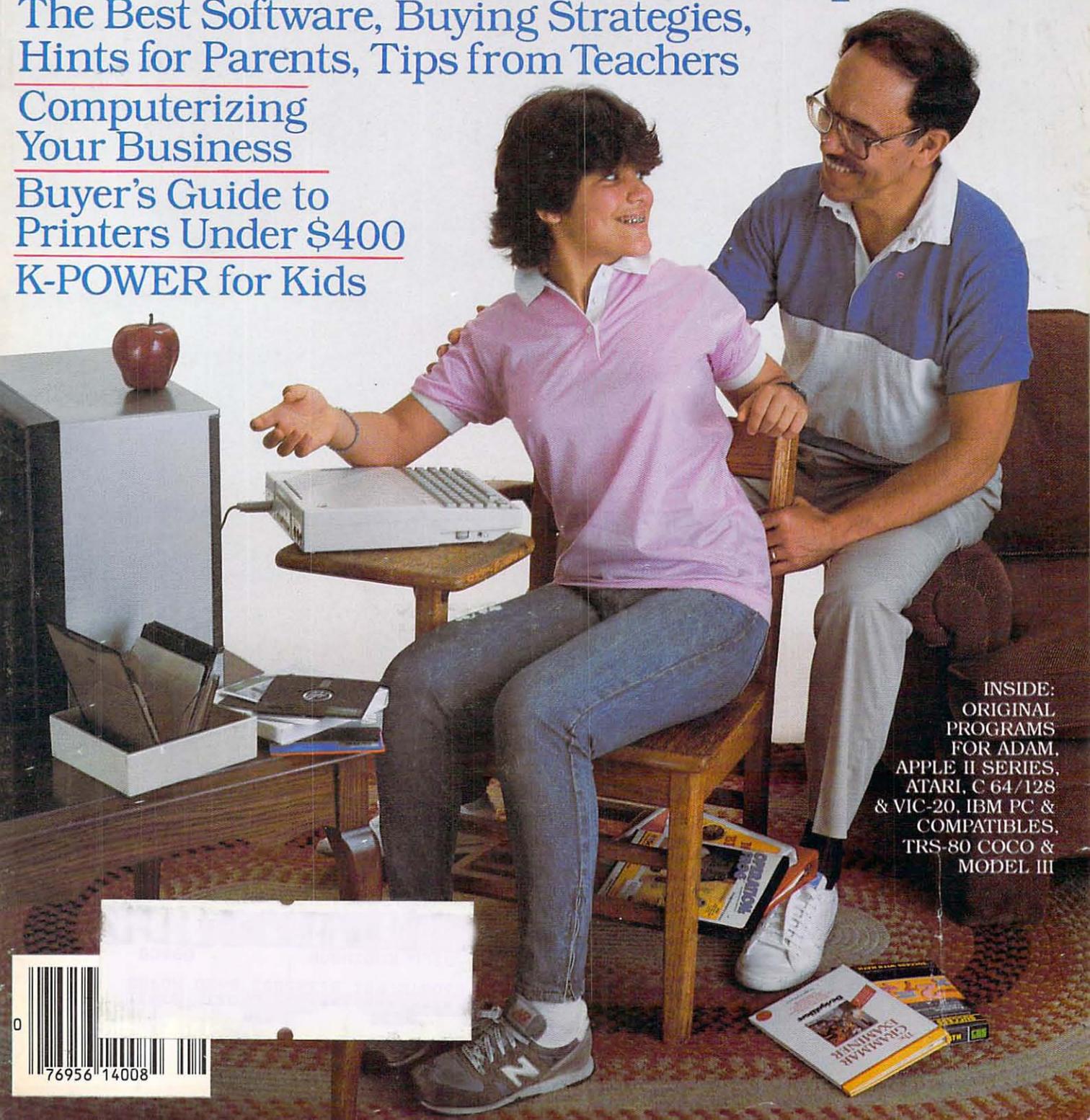
## Learning at Home with Computers

The Best Software, Buying Strategies,  
Hints for Parents, Tips from Teachers

Computerizing  
Your Business

Buyer's Guide to  
Printers Under \$400

K-POWER for Kids



INSIDE:  
ORIGINAL  
PROGRAMS  
FOR ADAM,  
APPLE II SERIES,  
ATARI, C 64/128  
& VIC-20, IBM PC &  
COMPATIBLES,  
TRS-80 COCO &  
MODEL III



# FAMILY COMPUTING

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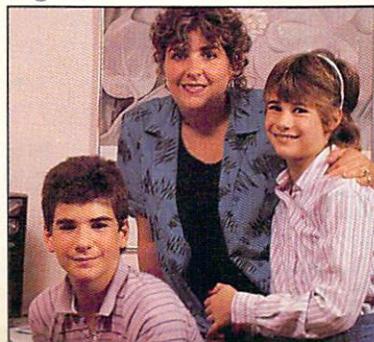
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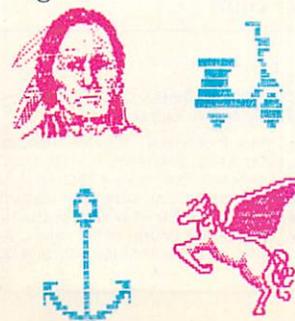
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# the PROGRAMMER

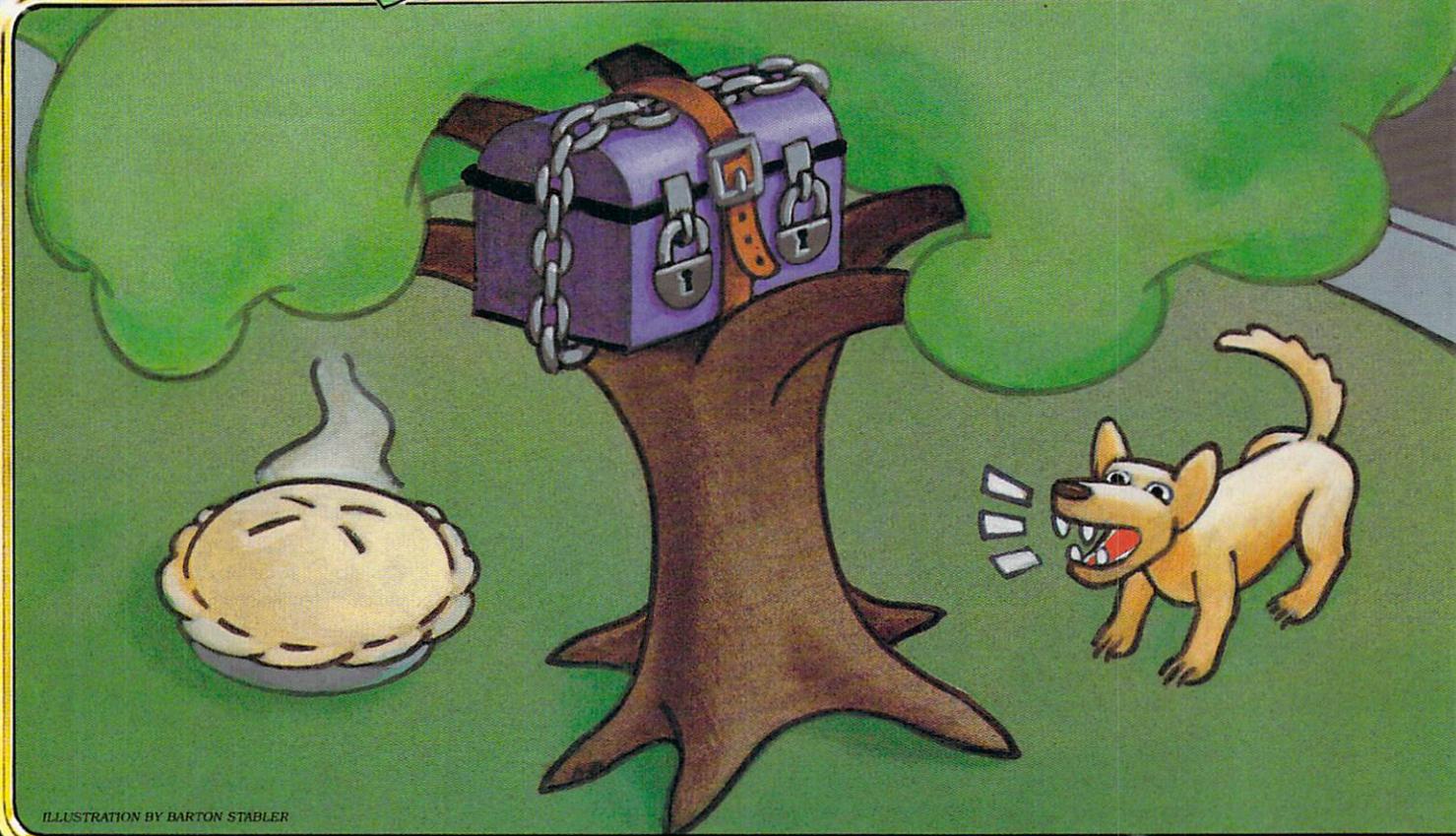


ILLUSTRATION BY BARTON STABLER

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### BEGINNER PROGRAM

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*Terminal Tale* can tell a million stories. One of them is just for you!

### CREATIVITY PROGRAM

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Let *Draw & Print* harness your printer to your imagination.

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Help Mrs. Weiss guess wisely and crack little Ehrich's caper.

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ILLUSTRATION BY JIM CHERRY III

Cherry

# TIPS TO THE TYPIST

Typing in FAMILY COMPUTING'S programs is a great way to become familiar with your computer and get some free software "to boot." But it's frustrating to type in a long program only to find it doesn't work as it should. When this happens, simple typing errors are most often the cause. So to help you gain greatest value from the time you spend computing with us, we've put together some tips on how to avoid typing errors—and what to do if a program doesn't run right. Read them carefully and you'll be up and running in no time!

## SOME GENERAL RULES

**1. Do** read instructions and program headings carefully. Make sure your computer has enough memory, the right version of BASIC, and the appropriate peripherals (joysticks, printers, disk drives, etc.) for a program.

**2. Don't** let fatigue and boredom contribute to inaccuracy. If you're new to programming, try typing in shorter programs first. Type in a longer program in easy stages, **SAVE**ing each installment as you go.

**3.** Until you are fairly familiar with BASIC, **do** assume that every word, number, letter, space, and punctuation mark in a program listing must be copied accurately if the program is to function as intended.

**4. Do** watch out for potential trouble spots. About 90 percent of all typing errors occur in DATA statements: long lines filled with numbers or incomprehensible secret codes. If possible, have someone else read DATA to you as you type, and help you proofread it if you have trouble later on. Proofreading from a printout is best.

**5. Do** be aware that program listings printed in FAMILY COMPUTING sometimes differ from what you will see on your computer's screen or in printouts you produce at home. Our program listings are printed 54 characters wide. Thus, a single BASIC program "line" (sometimes called a "logical line") may appear as several lines in our listing. If you are typing along and reach the right margin of the printed listing, don't press RETURN or ENTER until you've checked to see if the program "line" you're typing really ends there. The way to tell is to check if the line following begins with a multiple of 10 that follows in sequence from the previous logical line. REM statements are the exception and typing them in is optional.

Several computers (ADAM, Apple, Atari, and TI) format BASIC programs according to unique rules of their own. Don't let this throw you—just type in the listing exactly as printed in the the magazine and your computer is guaranteed to accept it, even though it may end up looking a little different on your screen.

**6.** One foolproof way to correct an error in a BASIC program line is to type the line in again from the beginning, and press RETURN or ENTER to set it in place of the old one in your computer's memory.

## WHICH PROGRAMS WILL RUN ON MY COMPUTER?

Unless a program heading indicates otherwise, programs

will run on any version of the computer specified, with the following exceptions:

- Apple programs run under Applesoft (*not* Integer) BASIC on the Apple II (with language card), II plus, IIe, and IIc. The Macintosh is not supported as of this writing.
- IBM compatibility of BASIC programs is determined by both the hardware and the version of BASIC used. Our programs for IBM PC & compatibles are composed on IBM PC & PCjr's, and tested under most versions of BASIC available for these machines. They are then tested on a variety of IBM-compatible machines under the versions of BASIC supplied with them. Each "IBM PC & compatibles" program listing is supplemented by a rundown of the machines and versions of BASIC under which the program is guaranteed to work. Most programs will probably run on many other PC Compatibles and under other versions of BASIC.
- TI programs not marked "w/TI Extended BASIC" should be run under standard (console) TI BASIC.

## DEBUGGING HINTS

Sometimes even the most careful typist makes a mistake. Don't expect your program to run right off the bat. If you have problems, remain patient and follow these general instructions for a probable quick fix.

**LIST** the program in screen-size chunks (check your manual for instructions on how to LIST parts of a program). Even better, if you have a printer, get a printout. Compare what you've typed in—letter by letter—to the published program. Make sure that you haven't typed the numeral 0 (which is slashed in our listings) for the letter O (which isn't), swapped a small letter "l" for the numeral one, dropped or mixed up some punctuation, switched uppercase text for lowercase or vice versa (particularly in DATA statements or within quotes), or miscounted the characters (and/or spaces) between a pair of quotes. Get someone to help you if possible.

Check your DATA statements—then check them again. Mistakes in DATA statements are the single most common cause of program failures. Bad DATA can cause a program to malfunction at any point, which can be misleading.

## WHAT TO DO WHEN YOU'VE DONE IT ALL

We're proud of our programs, and we want you to enjoy them as much as we enjoy writing them. If you just can't figure out what's wrong with a program, we'd like to help. But we can't if you don't provide us with important information. When you write us (no telephone calls, please), indicate:

- Which program you're having trouble with.
- Which type of computer you own, the type of BASIC you are using, how much RAM your computer has, and what DOS and peripherals you're using, if any.
- What error messages your computer has given you.
- Your name, address, and telephone number.

If possible, please enclose a printout. Address all correspondence to Programming P.S., FAMILY COMPUTING, 730 Broadway, New York, NY 10003.

# A TERMINAL TALE



BY JOEY LATIMER

One day, back when I was in junior high school, a girl nicknamed "Mouse" walked up to me. She was carrying a piece of notebook paper, and she started asking me a whole bunch of personal questions: "What's your favorite color?" "Who do you love?" "Do you wear pajamas?"

"Wait a minute! What's all this for?" I asked.

"It's for a class," she said. Being a good sport, I answered all the questions, and Mouse started tallying the results. To my surprise, several of Mouse's girlfriends suddenly gathered around, and she began reading what seemed to be an old-fashioned story. But wait! I was the star! I had green hair, and I was going on a honeymoon in a '56 Chevy with my next-door neighbor!

What Mouse had done (besides embarrassing me) was insert the information I had given her into a story she had already written on the notebook paper. This type of story is called a "fill-in" story—one in which people's names, places, and other details are filled in after the story is written, to make a very personal (sometimes too personal) product.

This month's beginner program is a simple fill-in story called *A Terminal Tale*. The computer asks you some innocent-sounding questions, then takes the answers you supply and threads them together into a rather unlikely scenario. Have fun!

## PROGRAM NOTES

*Terminal Tale* uses a combination of PRINT and INPUT statements to ask questions and place the user's responses in a group of string variables. These strings are then inserted into PRINT statements, in combination with other words, phrases, and punctuation, to make a story.

When a string variable is used as part of a PRINT statement, it is usually bracketed by semicolons, like this:

```
10 PRINT "MY NAME IS ";NS;"."
```

The semicolons tell the computer to print everything in the PRINT statement, including the contents of the string variable, together on the same screen line.

It's not hard to make up your own fill-in story, or modify ours to suit your taste. Those of you with printers may want to experiment to see if you can print a hard copy of our *Terminal Tale*.

As always, if you come up with an interesting modification or enhancement of one of our beginner programs, we'd like to see it, and maybe mention it in a future issue. Please send a printout (no tapes or disks) to  
Beginner Programs  
FAMILY COMPUTING  
730 Broadway  
New York, NY 10003

On that note, we'd like to thank Phyllis Margarites of Burbank, Illinois for sending in a wonderful Atari version of the *Backward Speller*.

## ADAM & Apple/Terminal Tale

```
10 HOME
20 PRINT "PLEASE PRESS <RETURN> AFTER"
30 PRINT "ANSWERING EACH QUESTION."
40 PRINT
50 INPUT "WHAT'S YOUR NAME? ";NS
60 INPUT "ARE YOU FEMALE OR MALE? ";SS
70 IF LEFT$(SS,1) = CHR$(102) OR LEFT$(SS,1) = "F" THEN
  NS$ = "SHE":GOTO 90
80 GS="HE"
90 PRINT "WHAT CITY OR TOWN ARE"
100 INPUT "YOU FROM? ";CS
110 PRINT "WHAT'S YOUR FAVORITE TINY"
120 INPUT "ANIMAL (E.G., MOUSE)? ";AS
130 INPUT "WHO REALLY BUGS YOU? ";BS
140 INPUT "WHO DO YOU HAVE A CRUSH ON? ";LS
150 PRINT "WHAT'S YOUR LEAST FAVORITE"
160 INPUT "FOOD? ";FS
170 HOME
180 PRINT TAB(3);"*A TERMINAL TALE OF ";NS;"*"
190 PRINT
200 PRINT "    ONCE UPON A TIME, IN THE"
210 PRINT "CITY OF ";CS;", THERE LIVED"
220 PRINT "A BRAVE SOUL NAMED ";NS;"."
230 PRINT "ONE DAY, AS ";NS;" WAS"
240 PRINT "OUT RIDING A WILD ";AS;","
250 PRINT GS;" HEARD THE NEARBY SCREAMS"
260 PRINT "OF ";LS;" UPON ARRIVING AT"
270 PRINT "THE SCENE, ";GS;" FOUND"
280 PRINT LS;" UP IN A TREE,"
290 PRINT "MENACED BY A BARKING DOG,"
300 PRINT "NAMED ";BS;" , DOWN BELOW."
310 PRINT
320 PRINT "(PRESS ANY KEY TO CONTINUE.)"
330 GET K$
340 HOME
350 PRINT "    THINKING FAST, ";NS
360 PRINT "RAN INTO A NEARBY PIE SHOP,"
370 PRINT "BOUGHT A FRESH ";FS
380 PRINT "PIE, AND FED IT TO ";BS;" ,"
390 PRINT "WHO LOVED IT!"
400 PRINT "    THEN, ";NS;" HELPED"
410 PRINT LS;" DOWN FROM THE TREE."
420 PRINT "THEY RODE OFF ON THE ";AS
430 PRINT "AND LIVED HAPPILY EVER AFTER."
440 PRINT "(";BS;" WENT ON TO MAKE IT"
450 PRINT "BIG IN PET FOOD COMMERCIALS.)"
460 PRINT
470 PRINT TAB(10);"*THE END*"
```

## Atari 400, 800, 600/800XL, & 130XE/Terminal Tale

```
10 PRINT CHR$(125);
20 OPEN #1,4,0,"K:"
30 DIM NS(20),SS(1),GS(3),CS(20),AS(20),BS(20),LS(20),
  FS(20)
40 PRINT "PLEASE PRESS <RETURN> AFTER"
50 PRINT "ANSWERING EACH QUESTION."
60 PRINT
70 PRINT "WHAT'S YOUR NAME";
80 INPUT NS
90 PRINT "ARE YOU FEMALE OR MALE";
100 INPUT SS
110 IF SS="F" THEN GS="SHE":GOTO 130
120 GS="HE"
130 PRINT "WHAT CITY OR TOWN ARE YOU FROM";
140 INPUT CS
150 PRINT "WHAT'S YOUR FAVORITE TINY ANIMAL"
160 PRINT "(E.G., MOUSE)";
170 INPUT AS
180 PRINT "WHO REALLY BUGS YOU";
190 INPUT BS
200 PRINT "WHO DO YOU HAVE A CRUSH ON";
210 INPUT LS
220 PRINT "WHAT'S YOUR LEAST FAVORITE FOOD";
230 INPUT FS
```

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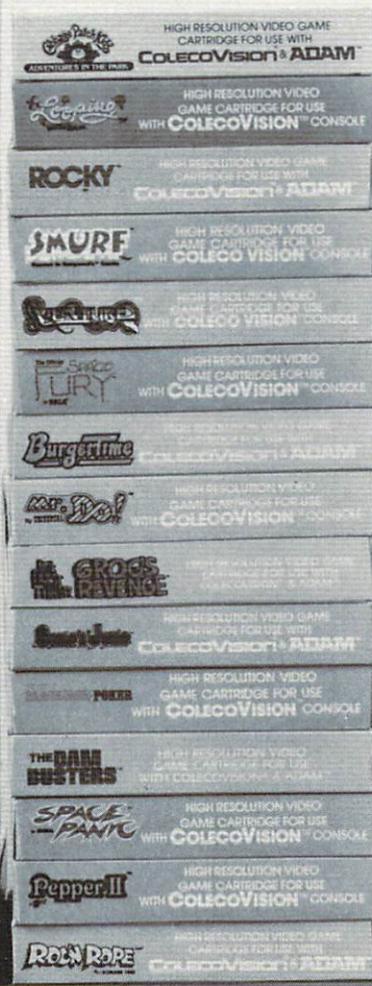
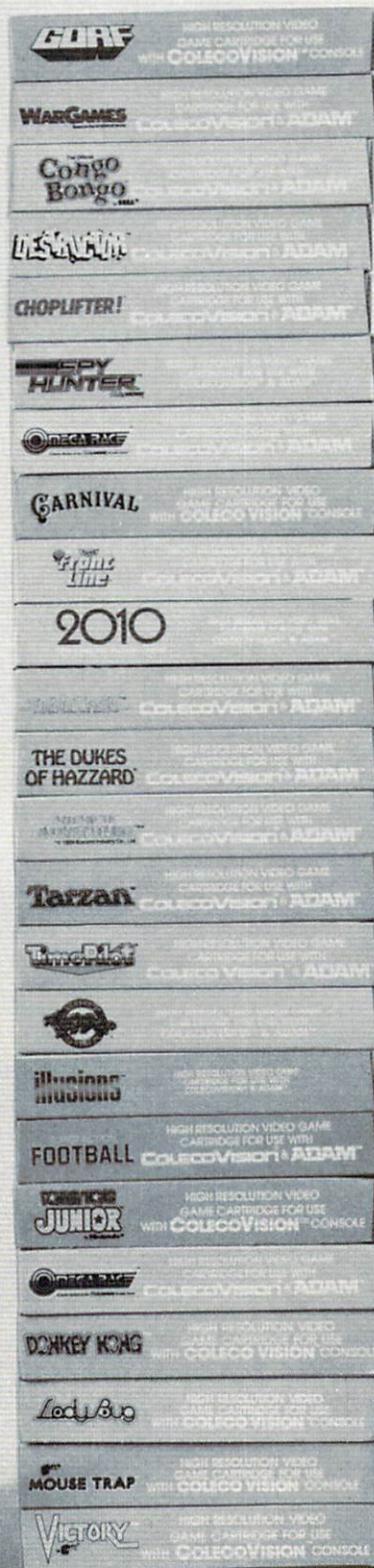
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**GAMES** REVIEWS BY JAMES DELSON

Title Manufacturer Price	Brief description	Hardware/ Equipment required	Backup policy	Ratings					
				O	D	PS	GQ	EU	V
2010: THE GRAPHIC ACTION GAME Coleco Industries 999 Quaker Lane S. West Hartford, CT 06110 (800) 842-1225 under \$30 © 1984	Enjoyable arcade game has little to do with the movie. Player must repair damaged circuit boards to prevent spaceship from crashing out of orbit. One-dimensional, but fun for young gamers, ages 8+.	Coleco ADAM.	90-day warranty.	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	E	★ ★
ADVENTURE WRITER CodeWriter Corp. 5605 W. Howard St. Niles, IL 60648 (312) 647-1270 \$40 (Atari, IBM PC/PCjr w/o graphics); \$50 (C 64, Apple w/graphics) © 1984	Time-consuming but worthwhile adventure construction set. Flexible design system, coupled with 115-page manual, allows for almost every conceivable text game element. Best for hard-core fans, ages 12+.	Reviewed on 48K Atari. Also for 48K Apple; C 64; 128K IBM PC/PCjr.	1-year warranty (includes user-damaged); \$15 fee thereafter or for backup.	★ ★ ★	★ ★ ★	★ ★ ★	N/A	D	★ ★ ★
BALLBLAZER Epyx 1043 Kiel Court Sunnyvale, CA 94089 (408) 745-0700 \$29-\$39 © 1985	Phenomenally exciting at first, this futuristic one-on-one soccer-type game, with state-of-the-art graphics and player control may grow dull after a few plays. For ages 10+.	Reviewed on 48K Atari. Also for 48K Apple; planned for C 64. Joysticks.	60-day warranty; \$5 fee thereafter or if user-damaged.	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	E	★ ★
BATTLE OF CHICKAMAUGA Game Designer's Workshop P.O. Box 1646 Bloomington, IL 61702-1646 (309) 452-3632 \$32 © 1985	Excellent wargame simulation of Civil War battle includes fatigue, morale, and hidden movement variables for one or two players. A major leap forward in genre for all skills, ages 12+.	48K Atari.	90-day warranty; \$5 fee thereafter.	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	A	★ ★ ★
COSMIC BALANCE II Strategic Simulations, Inc. 883 Stierlin Rd., Bldg. A-200 Mountain View, CA 94043-1983 (415) 964-1353 \$39 © 1983	You take on a friend or the computer and try to develop far-flung colonies in Diplomacy/Monopoly mix set in outer space. Marshal your resources carefully in game for all skills, ages 12+.	Reviewed on 48K Apple. Also for 48K Atari.	30-day warranty; \$10 fee thereafter.	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	A	★ ★ ★
PHANTASIE Strategic Simulations, Inc. 883 Stierlin Rd., Bldg A-200 Mountain View, CA 94043-1983 (415) 964-1353 \$39 © 1985	Create an adventure team and quest into the unknown, accumulating skills, fighting monsters, and more in fantasy/role-playing game. Fun but nothing new for ages 10+.	Reviewed on 48K Apple. Also for C 64/128.	90-day warranty; \$10 fee thereafter.	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	A	★ ★ ★
RACING DESTRUCTION SET Electronic Arts 2755 Campus Drive San Mateo, CA 94403 (415) 571-7171 \$32 © 1985	One or two players race and/or wreck their vehicles in complete "construction set." Modify or build from scratch existing cars, bikes, and buggies, and lay your own racecourse. For ages 8+.	C 64. Joystick(s).	90-day warranty; \$7.50 fee thereafter or if user-damaged.	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	A	★ ★ ★
RAID OVER MOSCOW Access Software 3678 W. 2100 S. Salt Lake City, UT 84120 (801) 973-0123 \$39 © 1984	Superb skill-arcade game by the author of <i>Beach-Head</i> puts you in command of a multilevel assault on U.S.S.R. The game is exciting and requires true finesse, but the story line is tasteless. For ages 10+.	C 64. Planned for Atari.	90-day warranty; \$7.50 thereafter; \$10 for backup.	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	D	★ ★ ★
RESCUE ON FRACTALUS! Epyx 1043 Kiel Court Sunnyvale, CA 94089 (408) 745-0700 \$29-\$39 © 1985	Fly a spaceship across a treacherous planet surface, locating and rescuing downed pilots while avoiding enemy fire. In spite of excellent flying simulation and stunning 3-D terrain, it grows dull once players, 10+ know it.	Reviewed on 48K Atari. Also for 48K Apple; C 64. Joystick(s).	60-day warranty; \$5 fee thereafter or if user-damaged.	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	A	★ ★
SHADOWKEEP Telarium Software One Kendall Square Cambridge, MA 02139 (617) 494-1200 \$39 © 1984	Knockout role-playing adventure uses limited animation and some text commands. Up to nine players can take part in one of the most involving dungeon games to date, for ages 12+.	64K Apple.	30-day warranty; \$5 fee thereafter.	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	A	★ ★ ★

**RATINGS KEY** O Overall performance; D Documentation; PS Play system; GQ Graphics quality; EU Ease of use; V Value for money; ★ Poor; ★★ Average; ★★★ Good; ★★★★★ Excellent; N/A Not applicable; E Easy; A Average; D Difficult; † Longer review follows chart.

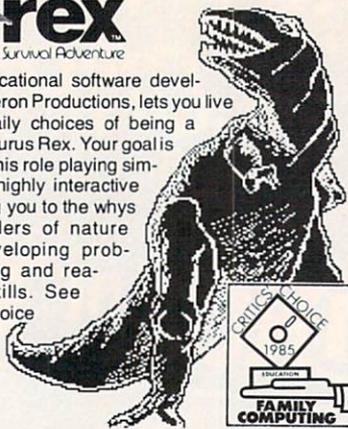
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