

**THE NEW  
ATARI 520 ST  
PREVIEW**

# FAMILY

# COMPUTING

## Business at Home

Your Guide to Buying Computer Systems

Integrated Software

Setting Up a Word-Processing Business

Maintenance Tips

24 At-a-Glance Software Reviews

Psychologist Lee Salk on Raising Kids With Computers

Save Money on Computers Through Co-ops

**K-POWER:** Game Strategies, Music Programs, Contest, and More

INSIDE: ORIGINAL PROGRAMS FOR ADAM, APPLE II SERIES, ATARI, C 64/ C 128 & VIC-20, IBM PC & PCjr, TRS-80 COCO & MODEL III  
SPECIAL BONUS PROGRAM: HALLOWEEN CLASSIC



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# FAMILY COMPUTING

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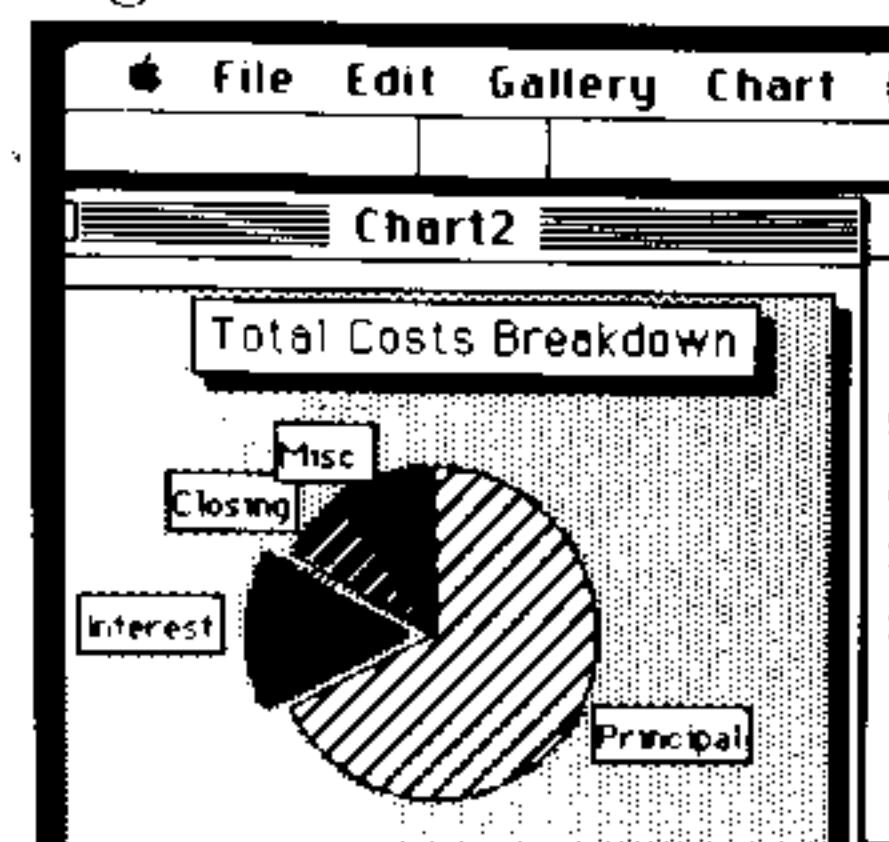
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**ISTANBUL**  
Monday, 9 a.m.

Athens  
Baghdad  
Kathmandu  
New Delhi

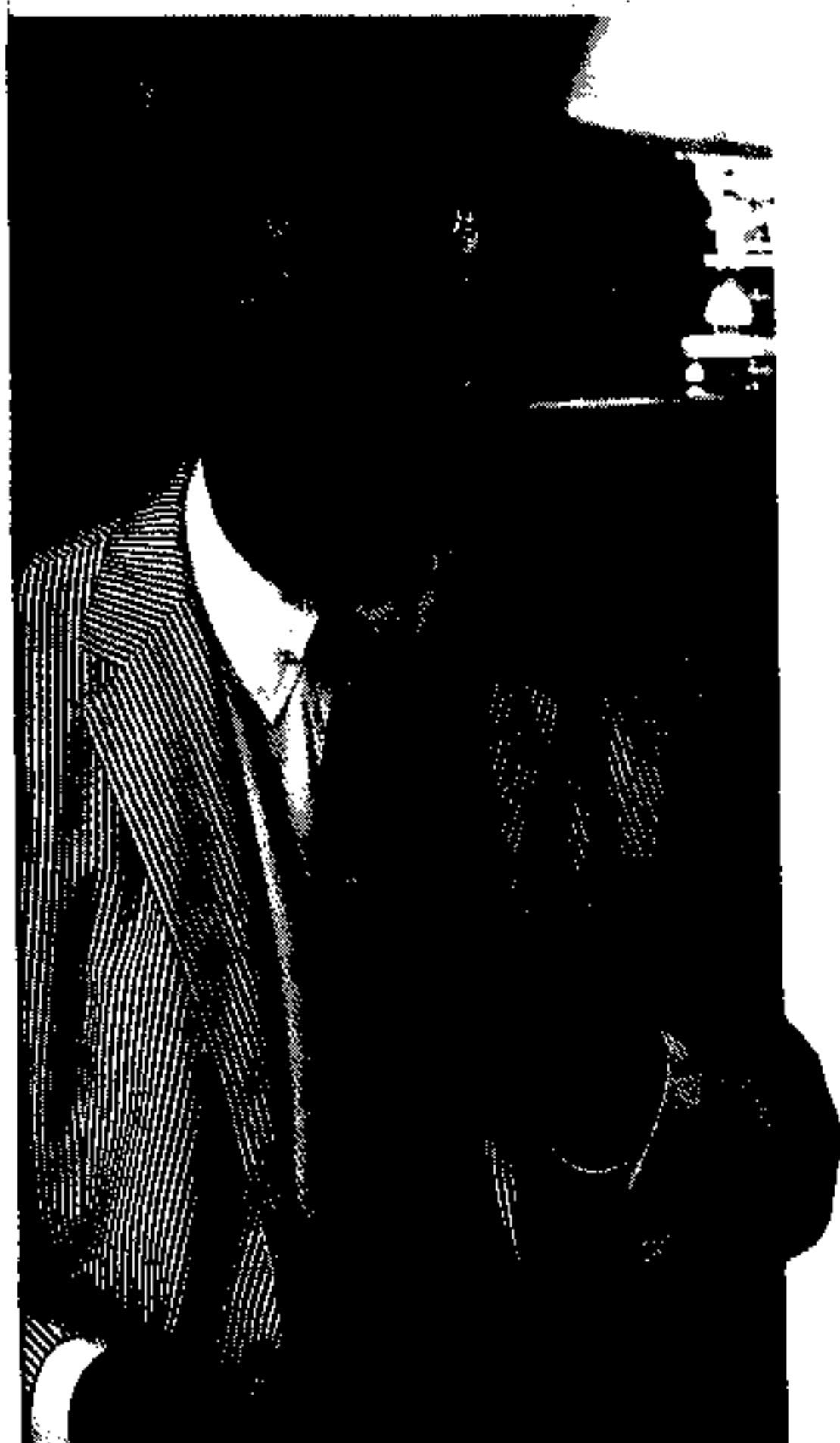
Istanbul, once called Constantinople, is the largest city in Turkey, with a population of 2.7 million.

Hide connections

Depart by plane

Investigate

Visit Interpol





# Earth will be destroyed in 12 minutes to make way for a hyperspace bypass. Should you hitchhike into the next galaxy? Or stay and drink beer?

Simply slip the disk in your computer and suddenly you are Arthur Dent, the dubious hero of *THE HITCHHIKER'S GUIDE TO THE GALAXY™* a side-splitting masterwork of interactive fiction by novelist Douglas Adams and Infocom's Steve Meretzky. And every decision you make will shape the story's outcome. Suppose for instance you decide to linger in the pub. You simply type, in plain English:

>DRINK THE BEER

And the story responds:

YOU GET DRUNK AND HAVE A TERRIFIC TIME FOR TWELVE MINUTES, ARE THE LIFE AND SOUL OF THE PUB, TELL SOME REALLY TERRIFIC STORIES, MAKE EVERYONE LAUGH A LOT, AND THEY ALL CLAP YOU ON THE BACK AND TELL YOU WHAT A GREAT CHAP YOU ARE AND THEN THE EARTH GETS UNEXPECTEDLY DEMOLISHED, YOU WAKE UP WITH A HANGOVER THAT LASTS FOR ALL ETERNITY, YOU HAVE DIED.

Suppose, on the other hand, you decide to:

>EXIT THE VILLAGE PUB THEN GO NORTH

In that case you'll be off on the most mind-bogglingly hilarious adventure any earthling ever had.

The Hitchhiker's Guide to the Galaxy comes complete with Peril Sensitive Sunglasses, a Microscopic Space Fleet, a DON'T PANIC Button, a package of Multipurpose Fluff and orders for the destruction of your home and planet.





You communicate—and the story responds—in full sentences. Which means that at every turn, you have literally thousands of alternatives. So if you decide it might be wise, for instance, to wrap a towel around your head, you just say so:

>WRAP THE TOWEL AROUND MY HEAD

And the story responds:

THE RAVENOUS BUGBLATTER BEAST OF TRAAAL IS COMPLETELY BEWILDERED. IT IS SO DIM IT THINKS IF YOU CAN'T SEE IT, IT CAN'T SEE YOU.

But be careful about what you say. Or one moment you might be strapped down, forced to endure a reading of the third worst poetry in the galaxy; the next you could be hurtling through space with Marvin the Paranoid Android aboard a stolen spaceship.

And simply staying alive from one zany situation to the next will require every proton of puzzle solving prowess your mere mortal mind can muster. Even simple tasks can put you at wit's end:

>OPEN THE DOOR

And the story responds:

THE DOOR EXPLAINS, IN A HAUGHTY TONE, THAT THE ROOM IS OCCUPIED BY A SUPER-INTELLIGENT ROBOT AND THAT LESSER BEINGS (BY WHICH IT MEANS YOU) ARE NOT TO BE ADMITTED. "SHOW ME SOME TINY EXAMPLE OF YOUR INTELLIGENCE," IT SAYS, "AND MAYBE, JUST MAYBE I MIGHT RECONSIDER."



Other interactive science fiction stories from Infocom include *PLANETFALL*, in which you're stranded on a mysterious deserted world. *STARCROSS*, a puzzling challenge issued eons ago and light-years away. *SUSPENDED*, the race to stabilize an entire planet's life support systems. And *A MIND FOREVER VOYAGING*, a radically new work of serious science fiction in which you explore the future of mankind.

CIRCLE READER SERVICE 1B

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But don't panic. You'll be accompanied every light-year of the way by your trusty Hitchhiker's Guide, which you can always depend on for up-to-the-nanosecond information. Well, almost always:

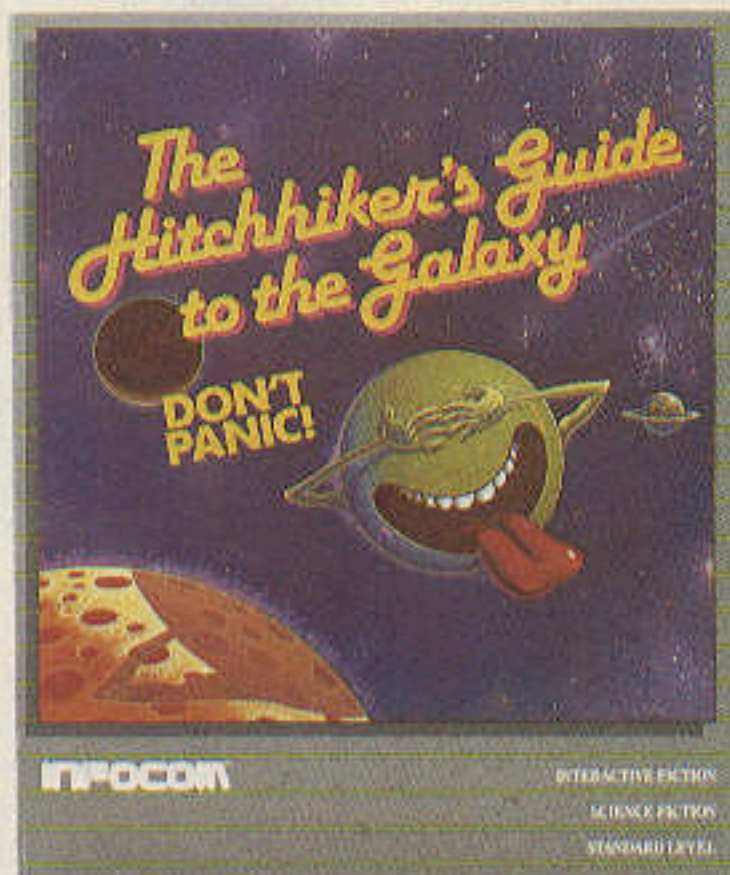
>CONSULT THE HITCHHIKER'S GUIDE ABOUT THE MOLECULAR HYPERWAVE PINGER

And the story responds:

SORRY, THAT PORTION OF OUR SUB-ETHA DATABASE WAS ACCIDENTALLY DELETED LAST NIGHT DURING A WILD OFFICE PARTY.

So put down that beer, take that towel off your head, open the door, hitchhike down to your local software store today and pick up THE HITCHHIKER'S GUIDE TO THE GALAXY. Before they put that bypass in.

Still not convinced? Try our Sampler Disk which includes portions of four different types of stories for a paltry \$7.95. If it doesn't get you hooked on the addictive pleasures of Infocom, return it for a full refund. If it does, you can apply the price toward any Infocom story. You can't lose!



# INFOCOM

For more information call 1-800-262-6868.  
Or write to us at 125 Cambridge Park Dr.,  
Cambridge, MA 02140.



## BEGINNER PROGRAM

```
110 PRINT "... AND THEY'RE OFF!"
120 X=RND(4)
130 PRINT@X*64+RP(X),RCS(X);
140 RP(X)=RP(X)+1
150 IF RP(X)<32 THEN 120
160 FOR DE=1 TO 10
170 SOUND 50+RND(10),1
180 NEXT DE
190 CLS
200 PRINT "... AND THE WINNER IS ";CHR$(34);RCS(X);CHR
$(34);"!
210 PRINT
```

### TRS-80 Models III & 4 (w/Model III BASIC)/ Character Race

```
10 DIM RCS(4),RP(4)
20 CLS
30 FOR I=1 TO 4
40 PRINT "WHAT IS THE CHARACTER FOR RACER #";I;
50 INPUT RCS(I)
60 IF LEN(RCS(I))>1 THEN 50
70 RP(I)=0
80 NEXT I
90 CLS
100 PRINT "... AND THEY'RE OFF!"
110 X=RND(4)
120 PRINT@X*128+RP(X),RCS(X);
130 RP(X)=RP(X)+1
140 IF RP(X)<64 THEN 110
150 FOR DE=1 TO 50
159 REM --CHANGE CHARACTER WIDTH--
160 PRINT CHR$(23);CHR$(28);
170 NEXT DE
180 CLS
190 PRINT "... AND THE WINNER IS ";CHR$(34);RCS(X);CHR
$(34);"!
200 PRINT
```

### VIC-20/Character Race

```
10 DIM RCS(4),RP(4)
20 PRINT CHR$(147);
30 FOR I=1 TO 4
40 PRINT "WHAT IS THE CHARACTER"
50 PRINT "FOR RACER #";I;
60 INPUT RCS(I)
70 IF LEN(RCS(I))>1 THEN 60
80 RP(I)=0
90 NEXT I
100 PRINT CHR$(147);
110 PRINT "... AND THEY'RE OFF!"
120 X=INT(RND(1)*4)+1
130 POKE 214,X*4
140 PRINT
150 PRINT TAB(RP(X));RCS(X);
160 FOR DE=1 TO 30
170 NEXT DE
180 RP(X)=RP(X)+1
190 IF RP(X)<22 THEN 120
200 FOR DE=1 TO 100
209 REM --SET A RANDOM BORDER COLOR--
210 POKE 36879,24+(INT(RND(1)*7)+1)
220 NEXT DE
229 REM --RESET BORDER TO NORMAL COLOR--
230 POKE 36879,27
240 PRINT CHR$(147);
250 PRINT "... AND THE WINNER"
260 PRINT "IS ";CHR$(34);RCS(X);CHR$(34);"!
270 PRINT
```

## HALLOWEEN CLASSIC

BY JOEY LATIMER

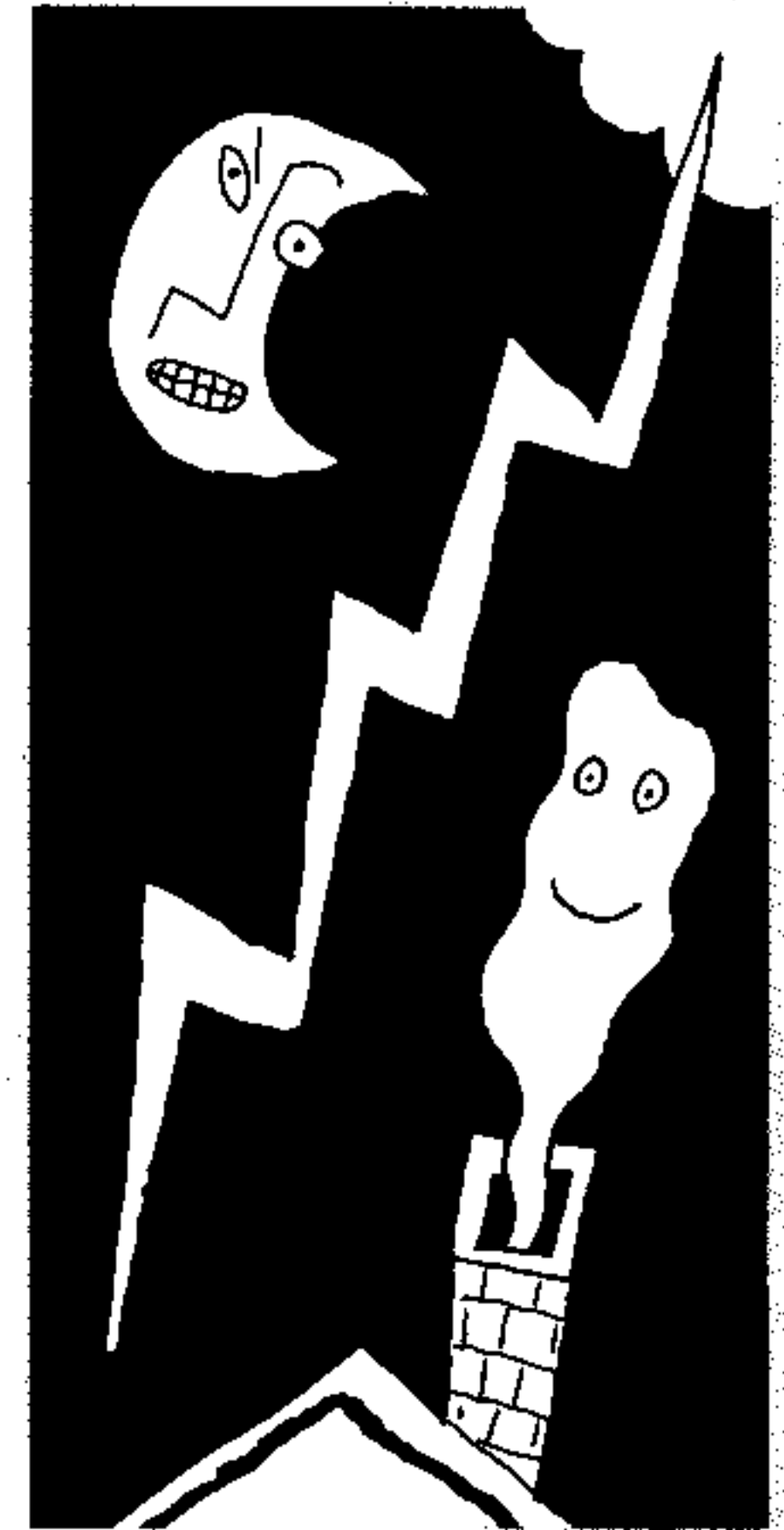
The classic image of Halloween night is one of dark, lightning-filled skies, ghosts in flight, and hollow, sinister eyes peering from the shadows. While this isn't the scene found in most neighborhoods you can make your holiday a little more "Halloweeny," with our *Halloween Classic* program. In it, you might find some of the Halloween atmosphere you've been missing: dancing ghosts, lightning flashes, and peering eyes. To give the local kids a treat, set up your computer just inside your front door on Halloween night. Better use a sturdy table, and remember to tie back all loose wires that might trip little feet. Then boot up *Halloween Classic* before the trick-or-treaters start knocking. When they arrive, ask for a volunteer to press any key. Don't be surprised if you can't get rid of the little goblins!

### PROGRAM NOTES

*Halloween Classic* is a fairly complicated program with animated graphics

### ADAM/Halloween Classic

```
10 LOMEM: 29000
20 DIM xy(4,2)
30 POKE 16766,109:POKE 16767,109
40 FOR i = 28000 TO 28093:READ a:POKE i,a:NEXT i
50 FOR i = 1 TO 28:READ m(i,1),m(i,2),m(i,3):NEXT i
60 FOR i = 1 TO 4:READ xy(i,1),xy(i,2):NEXT i
70 HOME:HGR2
80 HCOLOR= 5:FOR i = 1 TO 43:READ x,y,z
90 IF i < 27 THEN HPLLOT x,y TO x,z:GOTO 110
100 HPLLOT x,y TO z,y
110 NEXT i
120 HPLLOT 125,22 TO 37,110:HPLLOT 125,22 TO 213,110
130 POKE 28006,230:CALL 28000
140 SCALE= 8:FOR i = 1 TO RND(1)*14+8
150 HCOLOR= 3:ROT= 50:DRAW 3 AT 70,3
160 ROT= 20:DRAW 3 AT 180,60
170 POKE 28006,245-RND(0)*5:CALL 28000
180 IF RND(1) > 0.7 THEN GOSUB 1000
190 HCOLOR= 4:ROT= 50:XDRAW 3 AT 70,3
200 ROT= 20:XDRAW 3 AT 180,60
210 NEXT i:POKE 28006,255:CALL 28000
220 POKE 28006,144:CALL 28000
230 ROT= 0:SCALE= 2:FOR i = 242 TO 62 STEP -4
240 FOR j = i TO i-3 STEP -1
250 POKE 28006,128:CALL 28000
```



and sound. We've used sprite graphics in the C 64 and TI-99/4A versions, player-missile graphics on the Atari version, shape-table graphics on ADAM and Apple, and DRAW-language graphics techniques on the CoCo. Readers interested in how we used these techniques may wish to refer to *Pgraph!* (FAMILY COMPUTING March, page 62) for an explanation of Atari player-missile graphics and a handy utility for using them. Watch for upcoming articles on the special graphics capabilities of your computer.



# HALLOWEEN PROGRAM

```

270 FOR I=15 TO 27:COLOR 2+2*(I/2=INT(I/2))
280 PLOT 35,I:DRAWTO 44,I:NEXT I
290 FOR I=50 TO 82:PLOT 67,I:DRAWTO 83,I:NEXT I
300 COLOR 3:FOR I=45 TO 90 STEP 45:FOR J=35 TO 54
310 PLOT I,J:DRAWTO I+15,J
320 PLOT I,J+23:DRAWTO I+15,J+23:NEXT J:NEXT I
330 FOR I=55 TO 57:PLOT 73,I:DRAWTO 77,I:NEXT I
340 FOR I=1 TO 25+RND(0)*25
350 SOUND 0,INT(RND(0)*50),8,15
360 IF PEEK(704)<>0 THEN POKE 704+RND(0)*2,INT(RND(0)*
16)*16+13
370 SETCOLOR 2,0,0:IF RND(0)>0.5 THEN SETCOLOR 2,0,15
380 NEXT I:SETCOLOR 2,0,0
390 SOUND 0,0,0,0
400 FOR I=704 TO 706:POKE I,15:NEXT I
410 POKE 53248,0:POKE 53249,0:POKE 53250,84
420 FOR I=1 TO 50
430 TS=PS(P3+I-1,P3+I+20):PS(P3+I,P3+I+21)=TS
440 SOUND 0,I,10,10:NEXT I:SOUND 0,0,0,0
450 FOR I=1 TO 15
460 POKE 53248,112-I:POKE 53249,127+I
470 SOUND 0,160-I*10,8,15:FOR D=1 TO 100:NEXT D
480 NEXT I:SOUND 0,0,0,0
490 POKE 764,255:L1=0:T1=0:T2=12:F1=0:F2=0
500 TS=PS(P1)
510 IF T1=0 THEN L1=L1+1-30*(L1=30):SOUND 0,0,0,0:SOUN
D 0,M(L1,1),10,10:T1=M(L1,2)*6
520 IF T2>0 THEN 580
530 COLOR 4:IF RND(0)>0.5 THEN F2= NOT F2:COLOR 1
540 PLOT 74,56:PLOT 76,56
550 PS(P1-2+F2,P2+127-2+F2)=TS
560 F1= NOT F1:HP=3*((F1=0)-(F1=1))
570 POKE 53248,97+HP:POKE 53249,142+HP:T2=12
580 T1=T1-1:T2=T2-1
590 IF PEEK(764)=255 THEN 510
600 PS(P1,P2+127)=TS:POKE 53250,0
610 PS(P3,P3+127)=HS
620 COLOR 4:PLOT 74,56:PLOT 76,56:GOTO 340
1000 DATA 24,60,90,255,231,255,82,66,74,62,24,126
1010 DATA 189,189,189,60,60,60,60,60,28
2000 DATA 72,2,64,2,60,4,64,4,72,4,72,2,64,2,60
2010 DATA 2,47,2,64,2,60,2,72,4,60,2,53,2,47,2
2020 DATA 47,1,47,1,47,2,45,2,47,2,53,2,64,2,60
2030 DATA 2,53,2,53,1,53,1,53,2,47,2,53,2,60,2
3000 DATA 0,0,8,10,10,20,10,21,23,25,25,27,27
3010 DATA 35,29,40,27,45,10,10,7,20,10,25,8,35
3020 DATA 15,38,15,45,17,46,25,48,30,10,10,5,10
3030 DATA 15,12,17,12,25,9,30,18,40
3040 DATA 45,35,45,57,90,35,90,57

```

## Commodore 64 & 128 (C 64 mode)/Halloween Classic

```

10 DIM XY(4,2),D(32,2),MH(32),ML(32)
20 SB=1024:CB=55296:V=53248:S=54272
30 FOR I=0 TO 23:POKE S+I,0:NEXT I:POKE S+24,15
40 POKE S+5,24:POKE S+6,238:POKE 53280,8:POKE 53291,0
50 PRINT CHR$(147);
60 PRINT TAB(6);"LOADING DATA ... PLEASE WAIT."
70 POKE 2040,252:POKE 2041,253
80 POKE 2042,254:POKE 2043,255
90 FOR I=1 TO 4:READ XY(I,1),XY(I,2):NEXT I
100 FOR I=1 TO 32:READ D(I,1),D(I,2):NEXT I
110 FOR I=1 TO 32:READ MH(I),ML(I):NEXT I
120 FOR I=16128 TO 16191:READ A:POKE I,A:POKE I+64,A
130 POKE I+128,A:POKE I+192,A:NEXT I
140 FOR I=16248 TO 16255:READ A
150 POKE I,A:POKE I+128,A:NEXT I
160 PRINT CHR$(147);:READ Y:FOR X=0 TO 760
170 IF X<Y THEN POKE CB+X,0:POKE SB+X,160:GOTO 190
180 READ A:Y=Y+A
190 NEXT X
200 FOR RO=2 TO 12:FOR CO=20-RO TO 17+RO
210 POKE SB+CO+RO*40,160:POKE CB+CO+40*RO,11
220 NEXT CO,RO
230 FOR I=1 TO 15:READ X,Y,A,B,CH,KO
240 FOR RO=X TO Y:FOR CO=A TO B
250 POKE CB+CO+RO*40,KO:POKE SB+CO+RO*40,CH

```

```

260 NEXT CO,RO,I
270 FOR I=1 TO 3:READ CO,RO,CH,KO
280 POKE CB+CO+RO*40,KO:POKE SB+CO+RO*40,CH:NEXT I
290 POKE V+27,14:POKE S+4,129
300 FOR T=1 TO RND(1)*100+25
310 POKE 53281,RND(1)*2
320 POKE V+RND(1)*4+39,RND(1)*7+2
330 IF RND(1)>0.05 AND T>1 THEN 350
340 POKE S+1,RND(1)*5+1
350 NEXT T
360 POKE S+11,128:POKE 53281,0
370 FOR I=1 TO 4:POKE V+38+I,1
380 XY(I,2)=XY(I,2)+26:NEXT I
390 POKE V+21,0:K=2:FOR I=2 TO 4
400 POKE V+K,XY(I,1):POKE V+K+1,XY(I,2):K=K+2:NEXT I
410 POKE S+24,5:POKE S+4,17
420 POKE S,239:POKE V,80:POKE V+1,20:POKE V+21,15
430 FOR I=21 TO 150:POKE S+1,150-I
440 POKE V+1,I:IF I=96 THEN POKE V+27,15
450 NEXT I
460 POKE V+1,XY(1,2):POKE V,XY(1,1):POKE S+4,129
470 POKE S,239:FOR I=1 TO 13:FOR J=1 TO 4
480 POKE V+J*2-1,XY(J,2):XY(J,2)=XY(J,2)-2:NEXT J
490 POKE S+1,I:NEXT I:POKE S,0:POKE S+1,0:POKE S+4,33
500 FOR I=1 TO 32:J=0:FOR K=1 TO 4
510 POKE V+J,XY(K,1)-D(I,1):POKE V+J+1,XY(K,2)-D(I,2)
520 J=J+2:NEXT K
530 POKE S+1,MH(I):POKE S,ML(I)
540 IF RND(1)>0.8 THEN POKE 56074,INT(RND(1)*2):POKE 5
6075,PEEK(56074)
550 GET KS:IF KS<>" " THEN 290
560 NEXT I:GOTO 500
1000 DATA 196,144,132,144,104,199,224,199
2000 DATA 0,-4,0,4,0,-4,0,4,0,2,0,2,0,-2,0,-2
2010 DATA -4,0,4,0,-4,0,4,0,2,0,2,0,-2,0,-2,0
2020 DATA 4,4,-4,-4,-4,-4,4,4,4,4,4,-4,-4,-4,-4
2030 DATA -4,4,4,-4,4,-4,-4,4,-4,4,4,-4,4,-4,-4
3000 DATA 8,97,9,104,9,247,9,247,9,104,9,104,8,97,8
3010 DATA 97,8,97,9,104,9,247,12,143,9,104,9,247,8
3020 DATA 97,8,97,9,247,11,48,12,143,12,143,12,143
3030 DATA 13,78,12,143,11,48,9,104,9,247,11,48,11
3040 DATA 48,11,48,12,143,11,48,9,247
4000 DATA 0,0,0,0,0,0,0,0,0,0,0,0,126,0,0,255,0
4010 DATA 3,255,128,7,255,192,15,255,224,30,56,240
4020 DATA 62,186,248,126,56,252,127,255,252,255
4030 DATA 255,254,255,255,255,255,255,255,255
4040 DATA 255,255,255,255,255,255,255,199,24,227
4050 DATA 199,24,227,0,255,56,231,28,56,231,28,0
5000 DATA 4,23,9,8,9,15,2,5,8,2,1,5,1,15,2,5,1,6
5010 DATA 1,5,1,2,16,4,3,3,4,3,6,16,6,1,5,7,6,1,19
5020 DATA 6,2,5,2,7,17,6,4,3,26,2,11,30,9,2,30,11,30
5030 DATA 11,316,0
6000 DATA 19,24,0,39,160,9,13,24,6,31,160,11
6010 DATA 18,24,17,20,160,9,18,21,8,14,214,5
6020 DATA 18,21,23,29,214,5,11,14,12,17,214,5
6030 DATA 11,14,20,25,214,5,18,21,9,13,32,0
6040 DATA 18,21,24,28,32,0,11,14,13,16,32,0,11
6050 DATA 14,21,24,32,0,12,12,7,7,219,2,11,11
6060 DATA 7,8,219,2,9,10,7,9,219,2,8,8,6,10,219
6070 DATA 2,18,19,46,8,19,19,46,8,20,21,174,9

```

## TI-99/4A w/TI Extended BASIC/Halloween Classic

```

10 DIM AS(5),M(32,2),N(32)::FR=760::F=1
20 RANDOMIZE::CALL CLEAR::CALL SCREEN(2)
30 FOR I=1 TO 32::READ M(I,1),M(I,2)::NEXT I
40 FOR I=1 TO 32::READ N(I)::NEXT I
50 FOR I=1 TO 5::READ AS(I)::NEXT I
60 FOR I=1 TO 13::READ CH,CI
70 CALL CHAR(CH,AS(CI)):NEXT I
80 CALL COLOR(2,2,10)
90 FOR CS=8 TO 14::READ FG,BG
100 CALL COLOR(CS,FG,BG)::NEXT CS
110 FOR J=1 TO 47::READ A,B
120 CALL HCHAR(A,B,104)::NEXT J
130 CALL COLOR(10,2,2)
140 FOR I=3 TO 11
150 CALL HCHAR(I,19-I,112,2+I-5)::NEXT I

```

Fan  
A tot  
that  
adv  
gam  
histo



# HALLOWEEN PROGRAM

```

160 FOR I=1 TO 16 :: READ A,B,K,CH,REP
170 FOR J=A TO B :: CALL HCHAR(J,K,CH,REP)
180 NEXT J :: NEXT I :: CALL HCHAR(21,18,46)
190 CALL MAGNIFY(2)
200 FOR X=1 TO RND*10+20
210 KO=INT(RND*2)+1 :: IF KO=2 THEN KO=16
220 CALL SOUND(500,-(INT(RND*3)+5),0)
230 CALL COLOR(13,KO,1):: CALL COLOR(10,KO,1)
240 CALL COLOR(#(INT(RND*4)+2),INT(RND*12)+3)
250 NEXT X
260 FOR SP=2 TO 5 :: CALL COLOR(#SP,2):: NEXT SP
270 CALL COLOR(13,2,1):: CALL COLOR(10,2,1)
280 CALL SPRITE(#1,96,16,1,256,0,-10)
290 CALL SOUND(100,FR-S*15,10,FR-2,10,FR+3,10)
300 CALL POSITION(#1,S,T)
310 IF T<65 AND F THEN CALL MOTION(#1,4,0):: F=0
320 IF S<23 THEN FR=FR-3 :: GOTO 290
330 CALL DELSPRITE(#1):: FR=760 :: F=1
340 CALL SPRITE(#6,128,16,142,117):: I=1
350 CALL SOUND(300,N(I),5,N(I)*2,8)
360 CALL SPRITE(#2,97,16,100-M(I,1),80-M(I,2),#3,98,16,100-M(I,1),153-M(I,2))
370 CALL SPRITE(#4,99,16,148-M(I,1),70-M(I,2),#5,100,16,148-M(I,1),166-M(I,2))
380 IF RND>0.2 THEN CALL COLOR(#6,2):: GOTO 400
390 CALL COLOR(#6,16)
400 I=I+1+32*(I=32)
410 CALL KEY(0,X,S):: IF S=0 THEN 350 ELSE 200
1000 DATA 0,-4,0,4,0,-4,0,4,0,2,0,2,0,-2,0,-2
1010 DATA -4,0,4,0,-4,0,4,0,2,0,2,0,-2,0,-2,0
1020 DATA 4,4,-4,-4,-4,-4,4,4,4,4,4,4,-4,-4,-4,-4
1030 DATA -4,4,4,-4,4,-4,-4,4,-4,4,-4,4,4,-4,-4,4
2000 DATA 131,147,156,156,147,147,131,131
2010 DATA 131,147,156,196,147,156,131,131
2020 DATA 156,175,196,196,196,208,196,175
2030 DATA 147,156,175,175,175,196,175,156
3000 DATA "183C5AFFFFFFFFFA5","183C5AFFFFFFFFFA5"
3010 DATA "FF00FF00FF00FF00","0000004200000000"
3020 DATA "FFFFFFFFFFFFFFFF"
4000 DATA 88,5,96,1,97,1,98,1,99,2,100,2,104,5
4010 DATA 112,5,120,5,128,4,129,5,130,5,136,3
4020 DATA 3,3,16,1,16,1,7,7,10,10,2,2,13,1
4030 DATA 1,1,1,6,1,7,1,26,1,31,2,3,2,5,2,8
4040 DATA 2,24,2,25,2,30,3,2,3,4,3,9,3,10
4050 DATA 3,23,3,29,4,2,4,5,4,20,4,21,4,22
4060 DATA 4,24,4,28,4,30,5,1,5,5,5,25,5,27
4070 DATA 5,31,6,4,6,25,6,27,6,31,7,3,7,24
4080 DATA 7,26,7,32,8,2,8,4,8,23,8,27,9,1
4090 DATA 9,5,9,28,10,6,10,29,16,24,1,88,32
4100 DATA 12,24,7,112,19,18,24,14,120,5
4110 DATA 12,15,9,136,6,12,15,18,136,6
4120 DATA 18,21,8,136,5,18,21,20,136,5
4130 DATA 12,15,10,130,4,12,15,19,130,4
4140 DATA 18,21,9,130,3,18,21,21,130,3
4150 DATA 19,19,15,130,3,6,6,7,120,5,7,8
4160 DATA 8,120,3,9,9,8,120,2,10,10,8,120,1
4170 DATA 19,19,16,128,1

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170 DRAW "S20;BM193,10;" +LS:SOUND 5,1
180 DRAW "C0BM1,1;" +LS:DRAW "BM193,10;" +LS
190 SOUND 19,1:NEXT I:POKE 65495,0
200 DRAW "C1S4;BM231,10"+G$:GET (231,5)-(250,23),V,G
210 SOUND 115,1:PUT (231,5)-(250,23),U
220 FOR A=227 TO 61 STEP -4:B=A+19
230 PUT (A,5)-(B,23),V,PSET:SOUND A/2,1
240 PUT (A,5)-(B,23),U,PSET:NEXT A
250 FOR C=4 TO 34 STEP 2:D=C+19
260 PUT (61,C)-(80,D),V,PSET
270 SOUND C*5,1:FOR DE=1 TO 20:NEXT DE
280 PUT (61,C)-(80,D),U:NEXT C
290 FOR DE=1 TO 200:NEXT DE
300 FOR J=1 TO 4:FOR I=1 TO 32
310 A=M(I,1):B=M(I,2):FOR K=1 TO J
320 PUT (H(K,1),H(K,2))-(H(K,1)+19,H(K,2)+19),U
330 PUT (XY(K,1)-A,XY(K,2)-B)-(XY(K,1)-A+19,XY(K,2)-B+19),V,PSET
340 H(K,1)=XY(K,1)-A:H(K,2)=XY(K,2)-B
350 KPS=INKEY$:IF KPS<>" " THEN K=J:I=32:J=4:GOTO 390
360 IF RND(10)>9 THEN PSET(124,155):PSET(129,155):GOTO 380
370 IF RND(10)>8 THEN PRESET(124,155):PRESET(129,155)
380 NEXT K:SOUND N(I),1:NEXT I:NEXT J
390 FOR I=1 TO 4
400 PUT (H(I,1),H(I,2))-(H(I,1)+19,H(I,2)+19),U
410 NEXT I:GOTO 160
1000 DATA 86,98,148,98,72,150,163,150
2000 DATA 0,-3,0,3,0,-3,0,3,0,2,0,2,0,-2,0,-2
2010 DATA -3,0,3,0,-3,0,3,0,2,0,2,0,-2,0,-2,0
2020 DATA 3,3,-3,-3,-3,-3,3,3,3,3,3,3,-3,-3,-3,-3
2030 DATA -3,3,3,-3,3,-3,-3,3,-3,3,-3,3,3,-3,3,-3
3000 DATA 89,108,117,117,108,108,89,89
3010 DATA 89,108,117,147,108,117,89,89
3020 DATA 117,133,147,147,147,153,147,133
3030 DATA 108,117,133,133,133,147,133,117
4000 DATA "D11R1D1U13R1U2D15U1R1U14R1U1D14R1D1U15R1U1"
4010 DATA "D3R2D3L2D11R1U11R1U3L1U3R1D16U1R1U15R1D16"
4020 DATA "R1D1U11L1U3R1U3R1D3R1D3L1D11U1R1U15R1D14"
4030 DATA "R1D1U14R1D15R1U13D1R1D11"
5000 DATA "D1R1D1R1D1R1D1R1D1R1D1L1D1L1D1L1D1L1D1R6"
5010 DATA "U1L1U1L1U1L1U1R1U1R1U1R3D1R1D1R1D2R1BU9BL2D1"
5020 DATA "L1D1L1D1L1D1L2"
6000 DATA "S4;BM44,104;D88R96U48L28D48R96U86"
6010 DATA "BM52,144;D32R8U32L8R52D32L44R36U32"
6020 DATA "BM148,144;D32R8U32L8R52D32L44R36U32"
6030 DATA "BM68,88;D36R8U36L8R52D36L44R36U36"
6040 DATA "BM132,88;D36R8U36L8R52D36L44R36U36"
6050 DATA "BM60,89;U32L4U3R28D3L4D15"
6060 DATA "BM120,152;D8R12U8L12"
6070 DATA "BM0,134;R44 ;B ;R165R46"
7000 DATA 72,92,116,92,136,92,180,92,56,148
7010 DATA 100,148,152,148,196,148,68,56,124,146

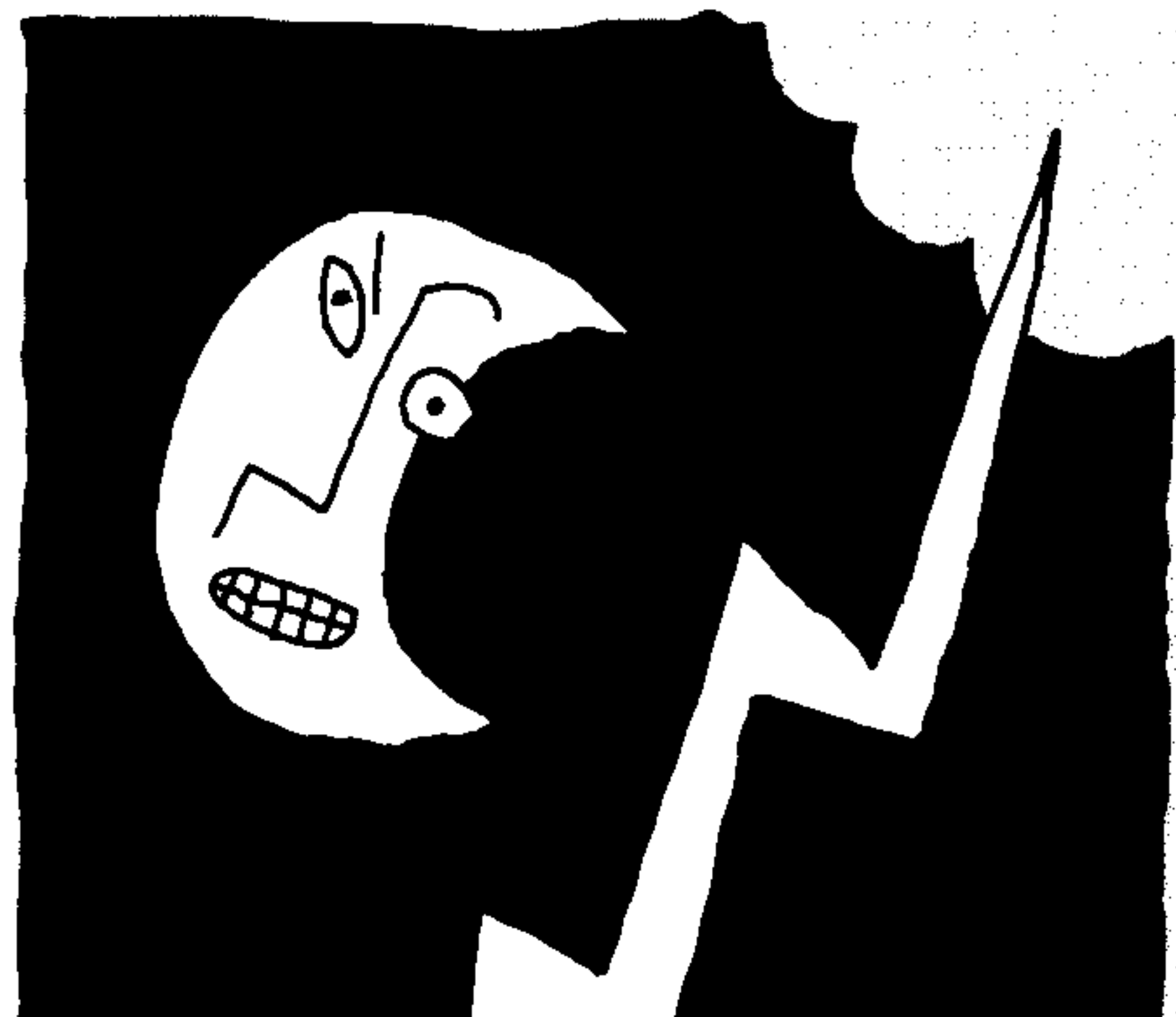
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## TRS-80 Color Computer w/Extended Color BASIC/ Halloween Classic

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10 CLEAR 1000:PCLEAR 8:PMODE 4,1:SCREEN 1,1:PCLS
20 DIM M(32,2),XY(4,2),H(4,2),N(32),V(19,17),U(19,17)
30 POKE 65495,0
40 FOR I=1 TO 4:READ XY(I,1),XY(I,2)
50 H(I,1)=XY(I,1):H(I,2)=XY(I,2):NEXT I
60 FOR I=1 TO 32:READ M(I,1),M(I,2):NEXT I
70 FOR I=1 TO 32:READ N(I):NEXT I
80 READ AS,BS,CS,DS:GS=AS+BS+CS+DS
90 GET (0,0)-(19,17),U
100 READ XS,YS,ZS:LS=XS+YS+ZS
110 LINE (36,112)-(126,28),PSET
120 LINE (126,28)-(216,112),PSET
130 FOR I=1 TO 8:READ HS:DRAW HS:NEXT I
140 FOR I=1 TO 10:READ X,Y:PAINT (X,Y),5,5:NEXT I
150 PSET(137,166,0):PSET(137,167,0):POKE 65494,0
160 FOR I=1 TO 4:DRAW "C1S20;BM1,1;" +LS

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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
ARMAGEDDON Social Software P.O. Box 7207 Dearborn, MI 48121 (313) 751-2643 \$29 © 1984	Adaptation of classic military board game Risk, this is exciting and challenging for players of all levels, age 10+.	128K PC/PCjr.	Unlimited warranty; 30-day money-back guarantee.	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	A	★ ★ ★
BOTTOMLINE CAPITALIST Venture Software 16200 Ventura Blvd. Encino, CA 91436 (818) 986-4110 \$80 © 1984	1-4 players vie to dominate a typical electronics market, and learn the basics of big business in a remarkably detailed, if poorly documented, financial simulation game. For ages 12+.	64K IBM PC.	90-day warranty.	★ ★ ★ ★	★ ★ ★	★ ★ ★ ★	★ ★ ★	D	★ ★ ★
CAPTAIN GOODNIGHT AND THE ISLANDS OF FEAR Broderbund Software 17 Paul Drive San Rafael, CA 94903-2101 (415) 479-1170 \$29 © 1985	Solo players, ages 10+, fly, shoot, drive, and dodge their way through enemy lines in complex strategy/arcade game requiring many skills. †	48K Apple.	90-day warranty; \$7.50 fee thereafter.	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	D	★ ★ ★ ★
COUNTDOWN TO SHUTDOWN Activision P.O. Box 7287 Mountain View, CA 94042 (415) 960-0410 \$29 © 1985	Solo players control eight robots that penetrate the depths of a labyrinthine nuclear power plant, seeking to prevent a core melt-down. Good for ages 10+.	C 64. Planned for 64K Apple.	90-day warranty.	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	D	★ ★ ★ ★
CUTTHROATS Infocom 125 CambridgePark Drive Cambridge, MA 02140 (617) 492-6000 \$34-\$39 © 1984	Join beach rats in a search for sunken treasure. Dive to retrieve the loot in an enjoyable intermediate-level, text-only adventure for ages 12+.	Reviewed on 48K Apple. Also for 48K Mac; 48K Atari; C64; 48K IBM PC/PCjr; TI-99/4A; TRS-80 Model III.	90-day warranty; \$5 fee thereafter.	★ ★ ★	★ ★ ★	★ ★ ★	N/A	D	★ ★
THE GREAT AMERICAN CROSS COUNTRY ROAD RACE Activision P.O. Box 7287 Mountain View, CA 94042 (415) 960-0410 \$29 © 1985	Solitaire car-race game lets you choose from a variety of authentic U.S. routes, then race computer players. Wonderful graphics enhance this treat for ages 10+.	Reviewed on C 64. Also for 48K Atari.	90-day warranty.	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	E	★ ★ ★
KENNEDY APPROACH... MicroProse Software 120 Lakefront Drive Hunt Valley, MD 21030 (301) 667-1151 \$34 © 1985	Nerve-racking, edge-of-the-seat excitement awaits solo players trying their hands at air-traffic control simulation. One of the year's best. For ages 12+.	Reviewed on C 64. Also for 48K Atari.	60-day warranty; \$10 fee thereafter.	★ ★ ★ ★	★ ★ ★	★ ★ ★ ★	★ ★ ★	D	★ ★ ★ ★
SIX-GUN SHOOTOUT Strategic Simulations, Inc. 883 Stierlin Road, Bldg. A-200 Mountain View, CA 94043 (415) 964-1353 \$39 © 1985	Return to rip-roaring days of the great movie westerns and shoot it out with legions of bad guys in a variety of Hollywood settings. For ages 10+.	Reviewed on 48K Apple. Also for 48K Atari; C 64.	30-day warranty; \$10 fee thereafter.	★ ★ ★	★ ★ ★	★ ★ ★ ★	★ ★ ★	E	★ ★ ★
WHISTLER'S BROTHER Broderbund Software 17 Paul Drive San Rafael, CA 94903-2101 (415) 479-1170 \$29 © 1984	Make your way through 13 levels, trailed by an absent-minded brother. Simplistic but compelling arcade game. Good for beginners, 8+, who enjoy joystick action.	Reviewed on C 64. Also for 48K Atari.	90-day warranty; \$7.50 fee thereafter.	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	E	★ ★ ★
WILDERNESS Electric Transit, Inc. Distributed by Electronic Arts 2755 Campus Drive San Mateo, CA 94403 (415) 571-7171 \$49 © 1984	As a lone pilot who has crash-landed in the middle of nowhere, you must try to make your way through the wilderness and a variety of environments to safety. Fascinating adventure for ages 12+.	48K Apple.	90-day warranty; \$12 fee thereafter.	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	D	★ ★ ★ ★

**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.