Juggler

Jason Charlesworth,
Kings Lynn,
Norfolk.

Amstrad

JUGGLER is a very simple but enjoyable game for the Amstrad CPC-464.

Written in machine code, the game features hires multicolour sprites, continuous music, joystick or keyboard option and a high score table. In the game you must keep the balls in the air by bouncing them off a bat which you control at the bottom of the screen. At first there is only one ball but every 30 seconds a new one is added to a maximum of five. You get points for however many seconds you keep the balls flying and the amount of points you get per second increases with every extra ball.

To set the program up, type in listing 1 and save it with:

```
SAVE "JUGGLER"
```

Next type in listing 2 and run it. This program pokes in machine code and checks it at the same time for errors. If it finds an error, correct it then rerun the program until you get a "Finished, no errors" message. Then save the code directly after "Juggler" with

```
SAVE "CODE",b,37000,3000
```

The game may then be played by rewinding the cassette and typing RUN"".

In you wish to see all the levels, when it asks you to press s to start, leave the keys for a while and the program will give a demo — you can get out of the demo by pressing 0.

Finally, thank you to Robert Rhodes who translated the music for me.

```
100 DEF FN x(n)=10*((PEEK(n) AND 240)/16)+(PEEK(n) AND
 15)
110 MEMORY 32767
120 MODE 2:PRINT"Please wait":LOAD "!"
130 ENV 1,1,.0,1,5,1,1,5,-2,1,5,1,2
140 RESTORE 330:DIM n$(5),r(5):FOR a=1 TO 5:READ n$(a
),r(a):NEXT a
150 MODE 0:TAG:PLOT 640,400,2:a$="Juggler":a=1:b=600:c
=1:EVERY 1 GOSUB 170
160 IF a<>8 THEN 160 ELSE 190
170 MOVE b,396:PRINT MID$(a$,a,1);:b=b-4:IF b=(1.5+a*2
)*32 THEN b=600:a=a+1
180 RETURN
190 DI:TAGOFF:RESTORE:FOR a=0 TO 5:READ a$,p:LOCATE 1,
2*a+4:PEN p:PRINT a$:NEXT a
200 DATA Left            J,6,Right           K,10,Halt
     H,4,Start           S,2,Music On/Off  SPACE,12,Abo
rt         0,3
210 LOCATE 1,17:PEN 1:PRINT"Or use the joystick.":PEN
12:LOCATE 2,21:PRINT"Press S to start.":PEN 1
220 FOR a=0 TO 3000:a$=INKEY$:IF a$="s"OR a$="S" THEN
230 ELSE NEXT a:CALL 37000:CLS:PEN 2:PRINT"   J u g g
l e r":GOTO 190
230 CALL 37023:sc=10000*FN x(38027)+100*FN x(38026)+FN
 x(38025)
240 FOR b=0 TO 200:a$=INKEY$:NEXT b
250 FOR a=1 TO 5:IF sc<n(a) THEN NEXT a:GOTO 290
260 IF a<>5 THEN FOR b=5 TO a+1 STEP -1:n$(b)=n$(b-1):
n(b)=n(b-1):NEXT b
270 LOCATE 1,24:INPUT "Name Please ";n$(a)
280 r(a)=sc
290 CLS:PEN 2:PRINT"  High Score Table":FOR a=1 TO 5:L
OCATE 1,4+2*a:PEN a:PRINT n$(a)
300 LOCATE 6,4+2*a:PRINT n(a):NEXT a
310 PEN 12:LOCATE 1,22:PRINT"Press a key to start"
320 IF INKEY$="" THEN 320 ELSE PEN 2:CLS:PRINT"  J u g
 g l e r":GOTO 190
330 DATA Danger Mouse,400,Penfold,300,Shaggy the Yak,2
00,Doug&l McAngus,100,Black Adder,30
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10 MEMORY 32767:PRINT"please wait":a=37000
20 DIM t(35):FOR a=0 TO 35:READ t$:t(a)=VAL("&"+t$):NEXT a
30 FOR a=0 TO 35:READ a$:t=0:FOR b=0 TO 79:t=VAL("&"+M
ID$(a$,b*2-1,2)):POKE a,t:t=t+t:a=a+1:NEXT b:IF t<>t(a
) THEN 50
40 NEXT a:PRINT"Finished,no errors.":END
50 PRINT"Error in line 60 or line "a*10-70:END
60 DATA 12352,7509,7218,8870,8987,9196,9644,5830,7930,
7805,9474,8754,6993,3233,0,4792,5552,3514,4392,7552,54
80,4476,7048,5992,5396,3
410,3313,4383,4804,5010,5281,3635,4394,4072,4059,2584
70 DATA C3B090CDF252CD4A91CDA5923AA294FE04300ADD19BCCD
FD91CDA291CDD590CDA992CD7192CD56913AA394FE0028DAC9CDF2
92CD4A91CD19BCDFD91CDA2
91CDD590CD56913AA394FE0028EAC93AA491
80 DATA FE01C03E32CDADBCE607FE03382F2AA5923237EFE0628
252B2E7C320F91237E32109237E3213912322A5942114191C3
AABC0400000D500000FCC0421AA941189940121000EDB0C93E2FCD1E
BB2B133AA994FE012B133E01
32A9943AA494EE0132A9491804973ZA9943E
100 DATA 2CCD.EB3281BCDB6BC3E3CCD1EBB2BF521000011000C
D10BD3E07C0B38C3E20CD1EBBC83E0132A394C9CD0D9D7CFE01C07
DFE2B0BD62E2600CD10BDCD4
A943AA194D6012732A19421050022489AE6F0
110 DATA 1F1F.F1FC630CDC3933AA194E60FC632CDC3933AA194F
E00C03E3032A19421269822A59421D99922A7943AA2943CFE06CB3
2A294C93AA2944721BD94E5C
54E2346235E235679834FFE0220051E01CDE4
120 DATA 92FE462005:EFCD8492780247FE0C2005160ICD8493F
EB6200516FFCD8492FEAF2210C3A8C943C91C606FE0E300E16FFCDB
492722B732B702B7121CC94D
1D53AA2943C9257!E00A7CB1ACB1B19CD9193
130 DATA C1E123232321094C921B0DF065097B62310FC473AA39
4B032A394C9E5F5D5C57BC62B32A3922!A0923AA494FE002803CDA
ABCC1D1F1E1C9010100D9000
00F2FF00CD7C933A8C9483FE4520023E44FEFF
140 DATA 200197328C945F16002180C71936002306OA363C2310F
B3600218!CF1936002306083600C2310FB3600218ZD71936002306O
6363602310FB3600C997CD0EB
C2150930614110000ED5348947ECDC3932310
150 DATA F93E03060OCD34933E0B0604CD34933E04060OCD34933
E0C060CCD3493210000110000CD10BD3E3032A194C9160OLCDBEBB5
8211000078A7.F4FD5C5CDEAB
BC1D1260!3E7E916FE5C5CDF6BBC1E116023E
160 DATA 7D905FD5C5CDF6BB21(211000C3F6BB54494D4520303
02053434F52452330303030303030!E003E4ACD1EBB2802!DC93E4BC
D1EBB2802!CC93E47CD1EBB2
8021DC93E16CD1EBBCB1CC9E579E71600625F
170 DATA 3EC7906FCD1DBCD10610C5E5010800EBEDB0EBE1CD26B
CC110F0C9E5D5C5F5E30385FFE3A305BD630171717F52A4894708
787875F16003E1894B7E787C
507AFC2600CD:DD3F1C6CC16973F300!1400607
180 DATA 1AD50E03.E00A717CB1317CB135797CB4B2802306BB4
32B02C60477237A0D20E311FD6719D11310D721489434F1C1D1E1C
F2A48943E1FCD5ABB2C79CD5
ABB247CD5A8BF1CD5AEB21407434C1D1E1C9
190 DATA 0700210E0D2748943AA2942189948627773O0E233E018
627773006233ED1862777218974233230603E4FE6F01!1F1FC63
0CDD63979E60FC630CDC3932
B10E8C9030000.907A801FF0E9601FF165AFF
200 DATA 0!226+01012C78FF012701010050978279A0C0C000001!0
432FF010E9601FF165AFF012Z5401012C78FF0130010000026980C9
000000000000000C02000000
300000000000000000000100000030000000300
210 DATA 000000000000000000000C000C000300000000000C0000
0000000!0000000000000020000000000000000000000000000000
0200000020000000000020000
300000020000000000020000000000000020000
220 DATA 0000000000000000000000000000000000000000000000
0000000200000000443CCC8800000044DCFCF3EC3B00000443CC3C7
C8B0000DC3C3B343CEC0000D
C3C3034.3CEC0000DC3C3B343CEC0000DC3C3B
230 DATA 343CEC0000DC3C3B343CEC0000DC3C3B343CEC0000DC3
C3C3033EC0000DC3C3033CEC000044BC3C3C7CB8000044DCFCFCE
C88000000044CCCC8B0000000
000000000000000000000000000000000001430
240 DATA 3CC8000000142D0F0F1E2800000140E2C0C0D2800002D1
BCCCC241E00002D4C3033BC1E000002D1B3033BC8
C1E000002D1BCCCC241E00002
D4C3033241E00002D4C3033BC:E00002D4CCC
250 DATA CCEC1E0000140E3C0C0D2800000142D0F0F1E2800000201
43C3C2800000000000000000000000300000000002000000040C0CE8
0000000409133336280000004
073F3F3B3800000912FCFC7162000091F630
260 DATA 30F9620000921D23030F9620CCC97.B274FC7162000091B
23030F9620000921B23030F9620000091F63030F9620000091B2FCFC7
162000040737F3F3B3800000004
09133336280000000040C0C0800000000000000
270 DATA 2000000000003CC000000000200C000500F0F0A0000002500
1333372A0000005066CCC295A0000018C0C1C4C720000C18C0C3C4
C720000B18C1C1C4C720000B
18C2C1C4C720000B19C0C1C4C720000B19C3C
280 DATA 3C6C720000B18C0C1C4C720000B18C0C1C4C720000506
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6CCCC99A000000501333372A0000000050FF0A0000000000000000000
0000000000000000000000000
0103030200000001034C3C3B2000001CCCC
290 DATA CCCC20000034CCCCCCCC3B0000034CC3C3C3C3B0000034C
C3C3C3B000034CCCCCC9C3B0000034CCCCCCCC3B000034C3C3C3CC
C3000034CC3FCCC3B00003
4CCCCCCCC3B00001062CCCCC9C2000001034C
300 DATA 3C3B2000020001030302000000000000200000000078848
484848478001030101010107C007884047880348FC007884043E048
47800182848888FC0800FC8
480F304847800784807F884847800788484784C04847800000000
0000000000000FA211030021BFF011BDF011BAA011B7B011BAA0
11BDE011BFA011B7B011BAA0
11BDE011BAA011BDE011BFA011BAA011BDE01
320 DATA 1BFA011B53030C3B020C8030C3B020C53030C3B020CF
6020C3B020CA4020C3B020C7E020C3B020CA4020C3B020CF6020C3
B020C53030C3B020C7E020C3
B020CA4020C3B020CF6020C3B020CA4020C38
330 DATA 020CF6020C3B020CE3030C3B020CA4020C3B020CF602
C3B020C53030C3B020C70040C3B020C5A020C3B020C70040C3B020
CF4030C3B020C9C030C38020
C5303030C3B020CF6020C7B010CA010C7BE10C
340 DATA F6020C7B010CA4020C7B010C7E020C7B010C3B020C7B0
10CAA010CFA010C3B020CFA010C7E021B520118780118AA0118C30
10C3B020C7E020C3B020CA40
2187B011BAA011BC3B11BFA010C7E020CA402
350 DATA 3C7E020CF6021EAA0118C30118FA0118380218FA0118C
301187E011B380218C30118A402183802183030CF6020CA4020C7
E020C3E021B780418F403185
3031BCC021B780418E4041BF6021870040CB6
360 DATA 030CF6020C7E020CA402185303183802067E026638020
C7004185303130A7061847051870041853030603BC030503031857030
C5303C00300300E000000003
00000003F010CD5000C52010CD5000C3F010C
370 DATA D5000C1C010CD5000CFD000CD5000CEF000CD50C0CFD3
00CD5000C1C010CD5000C3F010CD5003CEF003C05000CFD000CD50
00C1C0.0CD5000CFD0003D50
00C1C010CD5000C3F010CD5000CFD003CD500
380 DATA 0C1C010CD5000C3F010CD5000C5201187B011852011B3
F011101C011BFD001B1C011B3F011352011BFD001B1C011B3F011B1
C011B3F011B520.1B1C011E3
F011852011B7B011BFD0016EF0013D50018BE
390 DATA 0018A900183F010C9F0300CA9000C9F200C3F010C9F000
C1C010C9F000CFD003C9F000CE1000C9F000CA9000CD5000CE1003
CD5000C7F000CFD003CEE000
CFD000C9F003C0CFD000CF9000CFD000CBE003C
400 DATA 01000CFD00CE1000C0E00C0.C010C9F000C1C310CA90
00C1C010CBE003C1C010CD5003CFD000C1C010CFD000C9F000C3F0
.0CA9000C3F010CBE000C3F0
10CD5000C3F010CF1000C3F010CC5000C3F01
410 DATA 0CBE000C3F010CD5000C3F010CE1000C3F010CFD0000C3
F010C1C010C3F010C52010C7B010C520118D5001B7B0118E10018A
A013C7B010C6601.0CAA010C2
D010CAA010C1C010CAA010CFD0W0CAA013CC3
420 DATA 010CFA010CC3010C7B010C1C31303F010C52010C3F010
C52010C7B013C52010CAA011EC3010CFA010CC3802BC7E020CA4020
CF6020C0000200000000000
0020000000000000000000000000000000000
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