

Only 85p

commodore

HORIZONS

February 1985

COMPUTER MUSIC

Rosetti's synthesizer
software packages

C16 AND PLUS/4

Mastering Basic
V3.5 commands

PROGRAMMING

Data sorting methods
made easy

THE COMMUNICATIONS TRIANGLE:

**you, your computer,
and your
modem**

**David Whittaker of
Terminal presents
more Lazy Jones**



**WIN 5 Cambridge
Computing SLOMOS**

LLAMASOFT

Psychedelia competition
for CBM64, Vic 20 and C16

Lazy rides



Jones again

Terminal's David Whittaker presents a new screen for his idle hero

THIS MONTH'S Star Game for the 64 is from David Whittaker of Terminal Software.

Terminal started up four years ago as Terminal Music, a cassette, label and distribution business. It was the idea of Andy Hieke to explore the computer software field, and the company soon developed through the mail order field into direct selling to retail outlets.

Early Terminal games such as **Super Dogfight** and **Super Gridder** made way for more ambitious and advanced programs like **Star Commando** and **Plumb Crazy**.

David Whittaker's programming career developed via an interest in electronic music. He now has four synthesizers, and also plays guitar. During a break between tours with various bands in 1982 he took up programming on the Vic 20, and soon produced games such as **Mr Micro's Humphrey**. David, now 27, is working in 6502 and Z80 machine code, and is looking forward to using 16 and 32 bit computers. Commodore themselves market his games **Humphrey**, **Mayhem** and **Punchy**, but many would say that his greatest achieve-



ment to date is Terminal's **Lazy Jones**.

Lazy Jones is an idle hotel cleaner who would rather play video games than do any work. Terminal's game allows you to control Lazy Jones around the floors of his hotel, trying out each video game and avoiding the manager and the deadly cleaning trolley.

David has written a new screen for **Lazy Jones** which you can type in and play yourself.

The listing is in two parts, one to poke the character/code data and one for the game itself. Since there's a lot of data to type in, David's offering a copy of the program on cassette to anyone sending a cheque or postal order for £1.99 to him at 30 Cedar Place, Lower Broughton, Salford, M7 9NR.

To play the game use a joystick in port 2. You must control your missile projectors, which move left and right and up and down, and fire when the spinning artefact is aligned between them. Each time you hit the artifact it changes colour and you score points. You are playing against a time limit, so shoot fast if you want a high score! ■

Program 1

```

0 REM ***** PROG1 *****
1 PRINTCHR$(147) "JUST A MOMENT...""
2 FORR=20160 TO 22996
3 READD:Q=Q+D
4 POKER,D
5 NEXT
6 IFQ<>251630 THEN PRINT"ERROR IN YOUR DATA.":END
7 PRINT"DATA SEEMS O.K."
8 PRINT"NOW LOAD PROG2":END
5000 DATA 10, 170, 160, 10, 170, 160, 10, 170, 160, 10, 170, 160, 10, 170
5001 DATA 160, 10, 170, 160, 10, 170, 160, 10, 170, 160, 10, 170, 160, 10
5002 DATA 170, 160, 10, 170, 160, 10, 170, 160, 10, 170, 160, 10, 170, 160
5003 DATA 10, 170, 160, 10, 170, 160, 0, 0, 0, 0, 0, 0, 0, 0
5004 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
5005 DATA 0, 0, 0, 21, 85, 84, 42, 170, 168, 42, 170, 168, 42, 170
5006 DATA 168, 10, 170, 160, 10, 170, 160, 10, 170, 160, 10, 170, 160, 2
5007 DATA 170, 128, 2, 170, 128, 2, 170, 128, 0, 0, 0, 0, 0, 0, 0
5008 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
5009 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
5010 DATA 0, 0, 0, 85, 85, 85, 85, 42, 170, 168, 10, 170
5011 DATA 160, 2, 170, 128, 0, 170, 0, 0, 0, 0, 0, 0, 0, 0
5012 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
5013 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
5014 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
5015 DATA 2, 170, 128, 10, 170, 160, 42, 170, 168, 85, 85, 85, 85, 85
5016 DATA 85, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
5017 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0

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5087 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
 5088 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
 5089 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
 5090 DATA 0, 0, 0, 0, 16, 16, 16, 16, 16, 16, 16, 16, 16, 0, 0
 5091 DATA 0, 255, 0, 0, 0, 0, 0, 0, 0, 240, 16, 16, 16, 16, 16
 5092 DATA 0, 0, 0, 31, 16, 16, 16, 16, 16, 16, 16, 240, 0, 0
 5093 DATA 0, 0, 16, 16, 16, 31, 0, 0, 0, 0, 0, 0, 102, 60, 255
 5094 DATA 60, 102, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 255, 129
 5095 DATA 129, 129, 129, 129, 129, 255, 255, 195, 165, 153, 153, 165, 195, 255
 5096 DATA 172, 199, 48, 162, 7, 202, 189, 192, 48, 232, 157, 192, 48, 202
 5097 DATA 208, 245, 140, 192, 48, 96, 172, 192, 48, 162, 0, 232, 189, 192
 5098 DATA 48, 202, 157, 192, 48, 232, 224, 7, 208, 243, 140, 199, 48, 96
 5099 DATA 162, 7, 189, 192, 48, 42, 189, 192, 48, 42, 157, 192, 48, 202
 5100 DATA 16, 242, 96, 162, 7, 189, 192, 48, 106, 189, 192, 48, 106, 157
 5101 DATA 192, 48, 202, 16, 242, 96, 147, 151, 81, 64, 64, 64, 64, 64
 5102 DATA 64, 64, 64, 64, 64, 64, 64, 64, 64, 64, 64, 64, 64, 64, 64
 5103 DATA 64, 61, 141, 64, 81, 64, 64, 64, 64, 64, 64, 64, 64, 64, 64
 5104 DATA 64, 64, 64, 64, 64, 64, 64, 64, 64, 64, 64, 64, 61, 141, 64
 5105 DATA 64, 154, 216, 220, 220, 220, 220, 220, 220, 220, 220, 220, 220, 220, 220
 5106 DATA 220, 220, 220, 220, 220, 220, 220, 220, 220, 217, 141, 151, 64, 64
 5107 DATA 154, 94, 31, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88
 5108 DATA 88, 88, 88, 88, 88, 88, 88, 88, 88, 154, 95, 141, 151, 64
 5109 DATA 64, 154, 94, 31, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88
 5110 DATA 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 154, 95, 32, 32
 5111 DATA 32, 32, 129, 84, 72, 69, 32, 5, 49, 57, 84, 72, 141, 151
 5112 DATA 64, 64, 154, 94, 31, 88, 88, 88, 88, 88, 88, 88, 88, 88
 5113 DATA 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 154, 95, 141
 5114 DATA 151, 64, 64, 154, 94, 31, 88, 88, 88, 88, 88, 88, 88, 88, 88
 5115 DATA 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 154, 95
 5116 DATA 32, 32, 32, 32, 129, 83, 67, 82, 69, 69, 78, 141, 151
 5117 DATA 64, 64, 154, 94, 31, 88, 88, 88, 88, 88, 88, 88, 88, 88
 5118 DATA 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 154, 95, 141
 5119 DATA 151, 64, 64, 154, 94, 31, 88, 88, 88, 88, 88, 88, 88, 88, 88
 5120 DATA 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 154, 95
 5121 DATA 141, 151, 64, 64, 154, 94, 31, 88, 88, 88, 88, 88, 88, 88, 88
 5122 DATA 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 154
 5123 DATA 95, 141, 151, 64, 64, 154, 94, 31, 88, 88, 88, 88, 88, 88, 88
 5124 DATA 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88
 5125 DATA 154, 95, 32, 32, 32, 32, 32, 32, 154, 62, 63, 192, 193, 141
 5126 DATA 151, 64, 64, 154, 94, 31, 88, 88, 88, 88, 88, 88, 88, 88, 88
 5127 DATA 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 154, 95
 5128 DATA 32, 32, 32, 32, 158, 194, 195, 196, 197, 141, 151, 64
 5129 DATA 64, 154, 94, 31, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88
 5130 DATA 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 154, 95, 32, 32
 5131 DATA 32, 32, 32, 32, 154, 198, 199, 200, 201, 202, 141, 151, 64, 64
 5132 DATA 154, 94, 31, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 88
 5133 DATA 88, 88, 88, 88, 88, 88, 88, 88, 88, 88, 154, 95, 32, 32, 32
 5134 DATA 32, 32, 32, 158, 203, 204, 205, 206, 207, 141, 151, 64, 64, 154
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 5137 DATA 154, 94, 221, 221, 221, 221, 221, 221, 221, 221, 221, 221, 221, 221
 5138 DATA 221, 221, 221, 221, 221, 221, 221, 221, 221, 221, 221, 221, 221, 221
 5139 DATA 94, 158, 83, 67, 79, 82, 69, 154, 221, 5, 48, 48, 48, 154
 5140 DATA 221, 221, 221, 158, 84, 73, 77, 69, 154, 221, 5, 48, 48, 48
 5141 DATA 154, 95, 141, 32, 32, 154, 218, 221, 221, 221, 221, 221, 221
 5142 DATA 221, 221, 221, 221, 221, 221, 221, 221, 221, 221, 221, 221, 221, 219
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 5145 DATA 36, 145, 145, 29, 29, 29, 29, 29, 29, 29, 29, 29, 29, 29
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 5147 DATA 92, 93, 17, 157, 157, 157, 94, 33, 95, 17, 157, 157, 157, 157, 94
 5148 DATA 64, 95, 17, 157, 157, 157, 151, 60, 64, 64, 61, 19, 169, 3
 5149 DATA 141, 60, 3, 169, 0, 141, 79, 3, 169, 116, 141, 62, 3, 141
 5150 DATA 3, 208, 169, 48, 141, 2, 208, 169, 204, 141, 249, 7, 169, 128
 5151 DATA 141, 63, 3, 141, 4, 208, 169, 165, 141, 5, 208, 169, 205, 141
 5152 DATA 250, 7, 169, 190, 141, 64, 3, 169, 5, 141, 72, 3, 169, 0
 5153 DATA 141, 61, 3, 174, 60, 3, 232, 224, 11, 208, 2, 162, 2, 142
 5154 DATA 60, 3, 142, 39, 208, 173, 64, 3, 141, 248, 7, 32, 151, 224

5155 DATA 165, 142, 201, 126, 176, 247, 24, 105, 54, 141, 65, 3, 141, 0
 5156 DATA 208, 32, 151, 224, 165, 142, 201, 70, 176, 247, 24, 105, 80, 141
 5157 DATA 66, 3, 141, 1, 208, 169, 1, 141, 67, 3, 165, 141, 41, 1
 5158 DATA 240, 5, 169, 255, 141, 67, 3, 169, 1, 141, 68, 3, 32, 151
 5159 DATA 224, 165, 141, 41, 1, 240, 5, 169, 255, 141, 68, 3, 169, 0
 5160 DATA 141, 78, 3, 169, 10, 141, 73, 3, 169, 0, 141, 69, 3, 141
 5161 DATA 70, 3, 173, 0, 220, 74, 176, 5, 162, 255, 142, 69, 3, 74
 5162 DATA 176, 5, 162, 1, 142, 69, 3, 74, 176, 5, 162, 255, 142, 70
 5163 DATA 3, 74, 176, 5, 162, 1, 142, 70, 3, 173, 69, 3, 201, 1
 5164 DATA 208, 13, 173, 62, 3, 201, 161, 240, 6, 238, 62, 3, 32, 0
 5165 DATA 52, 173, 69, 3, 201, 255, 208, 13, 173, 62, 3, 201, 74, 240
 5166 DATA 6, 206, 62, 3, 32, 20, 52, 173, 70, 3, 201, 255, 208, 13
 5167 DATA 173, 63, 3, 201, 48, 240, 6, 206, 63, 3, 32, 42, 52, 173
 5168 DATA 70, 3, 201, 1, 208, 13, 173, 63, 3, 201, 198, 240, 6, 238
 5169 DATA 63, 3, 32, 59, 52, 173, 62, 3, 141, 3, 208, 173, 63, 3
 5170 DATA 141, 4, 208, 173, 0, 220, 41, 16, 208, 16, 173, 78, 3, 208
 5171 DATA 16, 169, 1, 141, 78, 3, 32, 219, 56, 24, 144, 5, 169, 0
 5172 DATA 141, 78, 3, 173, 79, 3, 240, 3, 76, 233, 54, 206, 72, 3
 5173 DATA 208, 49, 169, 5, 141, 72, 3, 174, 61, 3, 232, 224, 5, 208
 5174 DATA 5, 169, 11, 141, 39, 208, 224, 10, 208, 8, 162, 0, 173, 60
 5175 DATA 3, 141, 39, 208, 142, 61, 3, 174, 64, 3, 232, 224, 192, 208
 5176 DATA 2, 162, 187, 142, 64, 3, 142, 248, 7, 32, 151, 224, 165, 142
 5177 DATA 201, 8, 176, 9, 169, 0, 56, 237, 67, 3, 141, 67, 3, 32
 5178 DATA 151, 224, 165, 142, 201, 8, 176, 9, 169, 0, 56, 237, 68, 3
 5179 DATA 141, 68, 3, 173, 65, 3, 24, 109, 67, 3, 201, 49, 240, 7
 5180 DATA 201, 183, 240, 3, 141, 65, 3, 173, 66, 3, 24, 109, 68, 3
 5181 DATA 201, 75, 240, 7, 201, 153, 240, 3, 141, 66, 3, 173, 65, 3
 5182 DATA 141, 0, 208, 173, 66, 3, 141, 1, 208, 32, 94, 57, 206, 73
 5183 DATA 3, 208, 8, 169, 10, 141, 73, 3, 32, 162, 57, 173, 76, 3
 5184 DATA 208, 6, 173, 77, 3, 208, 1, 96, 76, 136, 55, 169, 2, 141
 5185 DATA 33, 208, 174, 0, 208, 160, 20, 236, 63, 3, 240, 6, 232, 136
 5186 DATA 16, 247, 48, 81, 174, 1, 208, 160, 20, 236, 62, 3, 240, 6
 5187 DATA 232, 136, 16, 247, 48, 65, 32, 111, 57, 169, 1, 141, 79, 3
 5188 DATA 169, 0, 141, 33, 208, 169, 11, 141, 5, 212, 160, 160, 173, 5
 5189 DATA 208, 205, 1, 208, 240, 3, 206, 5, 208, 173, 2, 208, 205, 0
 5190 DATA 208, 240, 3, 238, 2, 208, 140, 1, 212, 169, 128, 141, 4, 212
 5191 DATA 169, 129, 141, 4, 212, 162, 0, 202, 208, 253, 136, 208, 213, 240
 5192 DATA 5, 169, 8, 141, 5, 212, 169, 4, 141, 1, 212, 169, 32, 141
 5193 DATA 4, 212, 169, 33, 141, 4, 212, 32, 94, 57, 169, 0, 141, 33
 5194 DATA 208, 96, 169, 6, 133, 250, 169, 0, 133, 251, 198, 251, 208, 252
 5195 DATA 198, 250, 208, 244, 96, 248, 173, 74, 3, 24, 105, 1, 141, 74
 5196 DATA 3, 173, 75, 3, 105, 0, 141, 75, 3, 216, 41, 15, 24, 105
 5197 DATA 48, 141, 137, 6, 173, 74, 3, 168, 74, 74, 74, 24, 24, 105
 5198 DATA 48, 141, 138, 6, 152, 41, 15, 24, 105, 48, 141, 139, 6, 96
 5199 DATA 248, 173, 76, 3, 56, 233, 1, 141, 76, 3, 173, 77, 3, 233
 5200 DATA 0, 141, 77, 3, 216, 41, 15, 24, 105, 48, 141, 148, 6, 173
 5201 DATA 76, 3, 168, 74, 74, 74, 24, 105, 48, 141, 149, 6, 152
 5202 DATA 41, 15, 24, 105, 48, 141, 150, 6, 96
 5203 REM BET YOU'RE GLAD!

Program 2

```

0 REM ***** PROG2 *****
1 POKE52,46:POKE56,46:CLR:PRINTCHR$(8):POKE53272,29
2 POKE53280,0:POKE53281,0:POKE53269,0
3 GOSUB2000
4 HI=0:POKE53276,7:POKE53277,0:POKE53271,0:POKE53275,0:POKE53264,0
5 POKE54296,15:FORR=54272T054295:POKER,0:NEXT
6 GOSUB1000
7 FORR=53248T053263:POKER,0:NEXT
10 POKE53285,15:POKE53286,2
20 GOSUB500
22 POKE53269,31:POKE2043,197:POKE2044,202
23 POKE53255,220:POKE53257,220
24 POKE53290,9:POKE53291,10
25 POKE54277,12:POKE54276,128:POKE54276,129

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Continued overleaf

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26 FORR=254T0138STEP-2
27 POKE54273,255-R:POKE53254,R:POKE53256,R:NEXT
48 POKE53288,1:POKE53289,1
90 SC=0:POKE842,0:POKE843,0:REM SCORE
92 POKE844,153:POKE845,9:REM TIME
100 SYS14052
110 SC=(PEEK(1673)-48)*100+(PEEK(1674)-48)*10+PEEK(1675)-48
115 POKE53269,0
120 PRINTCHR$(147)SPC(210)"YOUR SCORE WAS"SC
122 PRINTSPC(90)"THE HI SCORE IS"HI
124 IFHI<SCTHENPRINTSPC(124)"YOU HAVE THE NEW HI SCORE OF"SC:HI=SC
125 FORT=0T01999:NEXT
130 PRINTSPC(169)"PRESS SPACE TO REPLAY"
140 GETA$:IF A$<>" THEN140
150 GOTOS
500 FORR=13388T014051
502 PRINTCHR$(PEEK(R));
504 NEXT
510 RETURN
1000 PRINTCHR$(147)SPC(208)"WELCOME TO THE WORLD OF"
1010 PRINTSPC(134)"LAZY JONES"
1020 PRINTSPC(170)"BY DAVID WHITTAKER"
1030 PRINTSPC(251)"JOYSTICK PORT 2"
1040 POKE54277,13:POKE54284,13:POKE54291,13
1042 POKE54273,4:POKE54280,4:POKE54287,4:POKE54272,0:POKE54279,8:POKE54286,16
1044 POKE54276,32:POKE54283,32:POKE54290,32
1046 POKE54276,33:POKE54283,33:POKE54290,33
1050 FORT=0T03999:NEXT
1060 RETURN
2000 FORR=32768T032804:READD:POKER,D:NEXT:SYS32768:RETURN
2001 DATA169,192,133,250,133,252,169,78,133,251,169,46,133,253,160,0,177,250
2002 DATA145,252,230,250,230,252,208,246,230,251,230,253,165,253,201,58,208,236
2003 DATA96

```

FAST LOADERS

COMMODORE 64

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