

Jan. 95

Movie-Scroller

van too Herzeg

```

..1000 78          SEI
..1001 A9 7F      LDA #7F
..1003 8D 0D DC   STA $DC0D } Timer-IRQs
..1006 8D 0D DD   STA $DD0D } aus
..1009 2C 0D DC   BIT $DC0D
..100C 2C 0D DD   BIT $DD0D
..100F A9 00      LDA #00 } Ghost-Byte 0
..1011 8D FF 3F   STA $3FFF
..1014 85 F7      STA $F7
..1016 85 F8      STA $F8
..1018 85 F9      STA $F9
..101A A9 17      LDA #17 } #23
..101C 85 F6      STA $F6
..101E A9 20      LDA #20
..1020 85 FA      STA $FA
..1022 A9 17      LDA #17
..1024 85 FB      STA $FB
..1026 20 48 10   JSR $1048 Sprites löschen
..1029 20 5F 10   JSR $105F Sprites initialisieren
..102C 20 B1 10   JSR $10B1 IRQ-Init
..102F A9 35      LDA #35 } RAM
..1031 85 01      STA $01 } Start
..1033 5B          CLI
..1034 A9 7F      LDA #7F
..1036 8D 00 DC   STA $DC00 } auf Taste
..1039 AD 01 DC   LDA $DC01 } warten
..103C C9 EF      CMP #EF
..103E D0 F4      BNE #1034
..1040 78          SEI
..1041 A9 37      LDA #37 } Ende
..1043 85 01      STA $01 } ROM ein
..1045 4C E2 EC   JMP $FCE2 } Reset
-----
..1048 A0 00      LDY #00 } ab
..104A 84 FE      STY #FE } $2600
..104C A9 26      LDA #26
..104E 85 FF      STA #FF
..1050 A2 19      LDX #19 } $19 Blocks
..1052 A9 00      LDA #00
..1054 91 FE      STA ($FE),Y } löschen
..1056 CB          INY
..1057 D0 FB      BNE #1054
..1059 E6 FF      INC #FF
..105B CA          DEX
..105C 10 F6      BPL #1054
..105E 60          RTS
-----
..105F A9 0E      LDA #0E } Standard-
..1061 8D 20 D0   STA $D020 } Bildschirmfarben
..1064 A9 06      LDA #06
..1066 8D 21 D0   STA $D021
..1069 A9 58      LDA #58
..106B 8D 00 D0   STA $D000
..106E A9 70      LDA #70
..1070 8D 02 D0   STA $D002
..1073 A9 88      LDA #88
..1075 8D 04 D0   STA $D004
..1078 A9 A0      LDA #A0
..107A 8D 06 D0   STA $D006
..107D A9 BB      LDA #BB
..107F 8D 08 D0   STA $D008
..1082 A9 D0      LDA #D0
-----
..1084 8D 0A D0   STA $D00A } x-Pos
..1087 A9 EB      LDA #EB } setzen
..1089 8D 0C D0   STA $D00C
..108C A9 00      LDA #00
..108E 8D 0E D0   STA $D00E
..1091 A9 80      LDA #80 } MSB für Spr#7
..1093 8D 10 D0   STA $D010 } setzen
..1096 A9 01      LDA #01
..1098 8D 27 D0   STA $D027 } alle
..109B 8D 28 D0   STA $D028
..109E 8D 29 D0   STA $D029
..10A1 8D 2A D0   STA $D02A } weiß
..10A4 8D 2B D0   STA $D02B
..10A7 8D 2C D0   STA $D02C
..10AA 8D 2D D0   STA $D02D
..10AD 8D 2E D0   STA $D02E
..10B0 60          RTS
-----
..10B1 A9 00      LDA #00 } IRQ
..10B3 8D FE FF   STA $FFFE } := $100
..10B6 A9 11      LDA #11
..10B8 8D FF FF   STA $FFFF
..10BB A9 1B      LDA #1B } VIC normal
..10BD 8D 11 D0   STA $D011 } Zeile
..10C0 A5 F6      LDA #F6 } $F6
..10C2 8D 12 D0   STA $D012
..10C5 A9 81      LDA #81 } VIC-IRQ
..10C7 8D 1A D0   STA $D01A } an
..10CA CE 19 D0   DEC $D019
..10CD 60          RTS
-----
..1100 48          PHA } Register
..1101 8A          TXA } retten
..1102 48          PHA
..1103 9B          TYA
..1104 48          PHA
..1105 A9 FF      LDA #FF } alle Sprites an
..1107 8D 15 D0   STA $D015 } Rahmen erhöhen
..110A EE 20 D0   INC $D020
..110D 18          CLC
..110E A4 F7      LDY #F7
..1110 A5 F6      LDA #F6
..1112 79 D0 11   ADC $11D0,Y
..1115 8D 01 D0   STA $D001 } y-Positionen
..1118 8D 03 D0   STA $D003 } setzen
..111B 8D 05 D0   STA $D005
..111E 8D 07 D0   STA $D007
..1121 8D 09 D0   STA $D009
..1124 8D 0B D0   STA $D00B
..1127 8D 0D D0   STA $D00D
..112A 8D 0F D0   STA $D00F
..112D A4 F9      LDY #F9
..112F BE 00 15   LDX $1500,Y } Spritepointer
..1132 8E FB 07   STX #07FB } setzen
..1135 EB          INX
..1136 8E F9 07   STX #07F9
..1139 EB          INX
..113A 8E FA 07   STX #07FA
..113D EB          INX
..113E 9E FB 07   STX #07FB
..1141 EB          INX

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..1142 8E FC 07 STX #07FC
..1145 E8          INX
..1148 8E FD 07 STX #07FD
..1149 E8          INX
..114A 8E FE 07 STX #07FE
..114D E8          INX
..114E 8E FF 07 STX #07FF
..1151 18          CLC
..1152 A4 F7          LDY #F7
..1154 B9 E1 11 LDA #11E1
..1157 65 F6          ADC #F6
..1159 8D 12 D0 STA #D012
..115C 6A          ROR
..115D 29 80          AND ##80
..115F 19 F1 11 ORA #11F1
..1162 0D 11 D0 ORA #D011
..1165 8D 11 D0 STA #D011
..1168 DE 19 D0 DEC #D019
..116B DE 20 D0 DEC #D020
..116E E8 F9          INC #F9
..1170 E6 F7          INC #F7
..1172 A5 F7          LDA #F7
..1174 C9 0C          CMP ##0C
..1176 D0 0B          BNE #1183
..1178 20 00 13 JSR #1300
..117B A9 00          LDA #00
..117D 8D 15 D0 STA #D015
..1180 20 00 14 JSR #1400
..1183 68          PLA
..1184 AB          TAY
..1185 68          PLA
..1186 AA          TAX
..1187 68          PLA
..1188 40          RTI

```

Spritepunkte
setzen

aus Tabelle

nächster Aufruf

Carry isolieren

Y verknüpfen

in Raster-USB

Schreiben

VIC-IRQ zulassen

Rasterlinien erniedrigen

ganz unten?

kein

Spikes

aus

IRQ-Ende

```

..11D0 02 1A 32 4A 62 7A 92 AA B22J1#_1
..11D8 C2 DA F2 0A 22 EA EA EA 1#-J" III
..11E0 00 1B 30 48 60 78 90 AB 2XOH-#7w
..11EB C0 DB F0 08 20 EA EA EA -#H III
..11F0 00 08 00 00 00 00 00 00 2H33333333
..11F8 00 00 00 80 80 EA EA EA 333-III

```

Sprites verschieben

Zähler zurücksetzen

#F6

erniedrigen

(keine Rasterzeile hoch)

```

..1300 A9 00          LDA #00
..1302 85 F7          STA #F7
..1304 38          SEC
..1305 A5 F6          LDA #F6
..1307 E9 01          SBC #01
..1309 85 F6          STA #F6
..130B 10 2F          BPL #133D
..130D E6 F8          INC #F8
..130F 38          SEC
..1310 A5 F8          LDA #F8
..1312 E9 0D          SBC #0D
..1314 30 02          BMI #131B
..1316 85 F8          STA #F8
..1318 A5 FA          LDA #FA
..131A C9 00          CMP #00
..131C D0 12          BNE #1330
..131E A5 FB          LDA #FB
..1320 C9 1C          CMP #1C

```

-13

CMP #00??

√2

```

..1322 D0 0C          BNE #1330
..1324 A9 00          LDA #00
..1326 85 FB          STA #FB
..1328 A9 20          LDA #20
..132A 85 FA          STA #FA
..132C A9 17          LDA #17
..132E 85 FB          STA #FB
..1330 18          CLC
..1331 A5 F6          LDA #F6
..1333 69 18          ADC #18
..1335 85 F6          STA #F6
..1337 A9 20          LDA #20
..1339 8D B0 11 STA #1180
..133C A5 FB          LDA #FB
..133E 85 F9          STA #F9
..1340 A5 F6          LDA #F6
..1342 8D 12 D0 STA #D012
..1345 AD 11 D0 LDA #D011
..1348 29 7F          AND #7F
..134A 09 08          ORA #08
..134C 8D 11 D0 STA #D011
..134F 60          RTS
..1400 5B          CLI
..1401 A9 2C          LDA #2C
..1403 8D B0 11 STA #1180
..1406 A5 FB          LDA #FB
..1408 69 0B          ADC #0B
..140A AB          TAY
..140B B9 00 15 LDA #1500
..140E 85 FE          STA #FE
..1410 A9 00          LDA #00
..1412 85 FF          STA #FF
..1414 06 FE          ASL #FE
..1416 26 FF          ROL #FF
..1418 06 FE          ASL #FE
..141A 26 FF          ROL #FF
..141C 06 FE          ASL #FE
..141E 26 FF          ROL #FF
..1420 06 FE          ASL #FE
..1422 26 FF          ROL #FF
..1424 06 FE          ASL #FE
..1426 26 FF          ROL #FF
..1428 06 FE          ASL #FE
..142A 26 FF          ROL #FF
..142C 18          CLC
..142D A5 FF          LDA #FF
..142F 69 00          ADC #00
..1431 85 FF          STA #FF
..1433 A2 00          LDX #00
..1435 20 AA 14 JSR #14AA
..1438 A2 01          LDX #01
..143A 20 AA 14 JSR #14AA
..143D A2 02          LDX #02
..143F 20 AA 14 JSR #14AA
..1442 A2 40          LDX #40
..1444 20 AA 14 JSR #14AA
..1447 A2 41          LDX #41
..1449 20 AA 14 JSR #14AA
..144C A2 42          LDX #42

```

wieder 23

JSR schreiben
schon kopieren

Rasterzeile setzen

USB löschen

nächstes Mal nicht kopieren

Spritepunkte

$\times 2^6$
 $= \times 64$

Movie-Scroller

```

..144E 20 AA 14 JSR $14AA
..1451 A2 80 7 LDX ##80
..1453 20 AA 14 JSR $14AA
..1456 A2 81 8 LDX ##81
..1458 20 AA 14 JSR $14AA
..145B A2 82 9 LDX ##82
..145D 20 AA 14 JSR $14AA
..1460 A2 C0 10 LDX ##C0
..1462 20 AA 14 JSR $14AA
..1465 A2 C1 11 LDX ##C1
..1467 20 AA 14 JSR $14AA
..146A A2 C2 12 LDX ##C2
..146C 20 AA 14 JSR $14AA
..146F E6 FF INC $FF
..1471 A2 00 13 LDX ##00
..1473 20 AA 14 JSR $14AA
..1476 A2 01 14 LDX ##01
..1478 20 AA 14 JSR $14AA
..147B A2 02 15 LDX ##02
..147D 20 AA 14 JSR $14AA
..1480 A2 40 16 LDX ##40
..1482 20 AA 14 JSR $14AA
..1485 A2 41 17 LDX ##41
..1487 20 AA 14 JSR $14AA
..148A A2 42 18 LDX ##42
..148C 20 AA 14 JSR $14AA
..148F A2 80 19 LDX ##80
..1491 20 AA 14 JSR $14AA
..1494 A2 81 20 LDX ##81
..1496 20 AA 14 JSR $14AA
..1499 A2 82 21 LDX ##82
..149B 20 AA 14 JSR $14AA
..149E A2 C0 22 LDX ##C0
..14A0 20 AA 14 JSR $14AA
..14A3 A2 C1 23 LDX ##C1
..14A5 20 AA 14 JSR $14AA
..14A8 A2 C2 24 LDX ##C2

```

```

..14DA D0 F3 BNE $14CF LOOP
..14DC 18 CLC
..14DD A5 FA LDA $FA
..14DF 69 01 ADC ##01
..14E1 85 FA STA $FA
..14E3 A5 FB LDA $FB
..14E5 69 00 ADC ##00
..14E7 85 FB STA $FB
..14E9 60 RTS

```

↑

```

..14AA B6 FE STX $FE Offset ablegen
..14AC A0 00 LDY ##00
..14AE B1 FA LDA ($FA),Y char holen
..14B0 85 FC STA $FC und merken
..14B2 A9 00 LDA ##00
..14B4 85 FD STA $FD
..14B6 06 FC ASL $FC )
..14B8 26 FD ROL $FD ) 4 Bits nach
..14BA 06 FC ASL $FC )
..14BC 26 FD ROL $FD ) links schieben
..14BE 06 FC ASL $FC )
..14C0 26 FD ROL $FD ) = *16
..14C2 06 FC ASL $FC )
..14C4 26 FD ROL $FD )
..14C6 18 CLC
..14C7 A5 FD LDA $FD
..14C9 69 08 ADC ##08 charset ab $0800
..14CB 85 FD STA $FD
..14CD A0 00 LDY ##00
..14CF B1 FC LDA ($FC),Y
..14D1 91 FE STA ($FE),Y } kopieren
..14D3 E6 FE INC $FE } Ziel um 3 erhöhen
..14D5 E6 FE INC $FE }
..14D7 0B INY } Quelle nur um 1
..14D8 C0 10 CPY ##10 schon 16

```