

:L

```
1 */MR.DO.BANK2 LAST EDIT:8/14/83
2 ;
3 LST ON
4 *****
5 * FINAL LISTING FOR ATARI VCS "MR. DO!"
6 * NTSC VERSION.... 8/14/83
7 * BY ED ENGLISH OF INDIVIDEO, INC.
8 *****
9 ;
10 * 2ND 4K BANK OF MR.DO! ->
11 * THIS IS THE MAIN FILE FOR BANK2 OF MR. DO!
12 *****
13 PAG
14 *****
15 * ATARI 2600 EQUATE FILE *
16 *****
17 PUT MR.DO.VCSDEF
18 PAG
19 *****
20 * RAM DEFINITION & EQUATES *
21 *****
22 PUT MR.DO.EQU
23 BOTVI = $202E. 302E
24 ORG $2FFC
25 ;MICE VECTORS.
26 DA $3000
27 DA END
28 PAG
29 *****
30 * TOP VERTICAL INTERVAL *
31 *****
32 PUT MR.DO.TOPVI
33 PAG
34 *****
35 * TITLE SCREEN PAINTING FILE *
36 *****
37 PUT MR.DO.TITLE
38 PAG
39 *****
40 * ORCHARD SCREEN SETUP FILE *
41 *****
42 PUT MR.DO.DISPLAY
43 PAG
44 *****
45 * SOUND & MUSIC CONTROL FILE *
46 *****
47 PUT MR.DO.MUSIC
48 PAG
49 *****
50 * POSITION LATCH VALUES FILE *
51 *****
52 PUT POSITION.TABLE
53 PAG
54 *****
55 * SOUND & MUSIC TABLES *
56 *****
57 PUT MR.DO.SND TABLES
58 PAG
59 OBJ $8894
60 ORG $3890
61 *****
62 * RIGHT DATA FILE
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62 * ORCHARD SCREEN PAINT FILE *
63 *****
64 PUT MR.DO.DIGITS
65 PAG
66 OBJ $8904
67 ORG $3900
68 *****
69 * SPRITE B IMAGE DATA FILE *
70 *****
71 PUT MR.DO.SPRITEB IMAGES
72 PAG
73 *****
74 * ADDRESS PTRS FOR WORDS *
75 *****
76 PUT MR.DO.ADDRESS PTRS
77 PAG
78 OBJ $8A04
79 ORG $3A00
80 *****
81 * SPRITE A IMAGES (PAGE 1) *
82 *****
83 PUT MR.DO.SA IMG1
84 PAG
85 OBJ $8B04
86 ORG $3B00
87 *****
88 * SPRITE A IMAGES (PAGE 2) *
89 *****
90 PUT MR.DO.SA IMG2
91 PAG
92 OBJ $8C04
93 ORG $3C00
94 *****
95 * LETTER IMAGE TABLES *
96 *****
97 PUT MR.DO.LETTER TABLES
98 PAG
99 OBJ $8D02
100 ORG $3CFE
101 *****
102 * ORCHARD SCREEN PAINT FILE *
103 *****
104 PUT MR.DO.ORCHARD
105 PAG
106 *****
107 * DISPLAY RTN FOR 6 SPRITES *
108 *****
109 PUT MR.DO.SCORE RTN
110 PAG
111 OBJ $9000
112 ORG $3FFC
113 DA INITSW
114 END

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430F8
 430F4
 430F8
 430F4

PAC
 CLK5000
 A727
 A675

:PR#0

:ASM

```
1  */MR.DO.BANK2  LAST EDIT:8/14/83
2  ;
4  *****
5  * FINAL LISTING FOR ATARI VCS "MR. DO!"
6  * NTSC VERSION.... 8/14/83
7  * BY ED ENGLISH OF INDIVIDEO, INC.
8  *****
9  ;
10 * 2ND 4K BANK OF MR.DO! ->
11 * THIS IS THE MAIN FILE FOR BANK2 OF MR. DO!
12 *****
```



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14 *****
15 * ATARI 2600 EQUATE FILE *
16 *****
17 PUT MR.DO.VCSDEF
>1 *FILE: VCSDEF (ATDEF W/LESS COMMENTS).
>2 *ATARI VCS VIDEO REGS + 6532 RIOT
>3 *****
>4
>5 ATSYNC = $00 ;B1=1 BRINGS GUN HOME.
>6 ATBLNK = $01 ;B1=1 TURN GUN OFF.
>7 ATWAIT = $02 ;STOP 6507 UNTIL END OF LINE.
>8 ATHORC = $03 ;RESET HORIZONTAL COUNTER.
>9 ATACTL = $04 ;SPRITE/MISSILE A CONTROL-
>10 ATBCTL = $05 ;SAME AS ATACTL FOR SPRITE B.
>11 ATACOL = $06 ;SPRITE/MISSILE A COLOR.
>12 ATBCOL = $07 ;COLOR SPRITE B.
>13 ATFCOL = $08 ;FIELD COLOR
>14 ATSCOL = $09 ;SCREEN COLOR
>15 ATFCTL = $0A ;FIELD DATA/MISSILE CONTROL
>16 ATFR0 = $0D ;B4-7: FIELD REG 0
>17 ATFR1 = $0E ;B0-7:FIELD REG 1
>18 ATFR2 = $0F ;B0-7:FIELD REG 2
>19 ATSALA = $10 ;SPRITE A HORIZ LATCH.
>20 ATSBLA = $11
>21 ATAWAV = $15 ;CHANNEL A WAVEFORM (B0-B3).
>22 ATBWAV = $16 ;CHANNEL B WAVEFORM.
>23 ATADIV = $17 ;CHANNEL A FREQ DIVISOR (B0-B4).
>24 ATBDIV = $18 ;CHANNEL B FREQ DIVISOR.
>25 ATAVOL = $19 ;CHANNEL A VOLUME. (B0-B3).
>26 ATBVOL = $1A ;CHANNEL B VOLUME.
>27 ATADAT = $1B ;SPRITE A DATA.
>28 ATBDAT = $1C ;SPRITE B DATA
>29 ATENMA = $1D ;B1=1 MIS A ENABLED IF ATMATK=0.
>30 ATENMB = $1E ;MIS. B ENABLE.
>31 ATENFM = $1F ;B1= FIELD MIS ENABLE.
>32 ATSAIN = $20 ;SPRITE A HORIZ INCREMENT (B4-B7).
>33 ATSBIN = $21
>34 ATASEL = $25 ;SA FONT SELECT.
>35 ATBSEL = $26 ;SB SELECT.
>36 ATFSEL = $27 ;FIELD MIS. ENABLE SELECT.
>37 ATMVIN = $2A ;ADDS INCR. TO SPRITE & MISSLE POS

>38 ATREMV = $2B ;RESET ALL 5 INCREMENT REGS.
>39 ATJBA = $3C ;JOY BUTTON A.
>40 ATJBB = $3D ;JOY BUTTON B.
>41 JOYDAT = $280 ;JOYSTICKDATA (PORT A).ALSO PADDLE

>42 ;0=CLOSED 1=OPEN
>43 * JOYDAT BITMASKS-->
>44 *-----
>45 JOYBUP = $01 ;PLAYER BJOYSTICK UP
>46 JOYBDN = $02 ;B DOWN
>47 JOYBLT = $04 ;B LEFT
>48 JOYBRT = $08 ;B RIGHT
>49 JOYAUP = $10 ;A UP
>50 JOYADN = $20 ;A DOWN
>51 JOYALT = $40 ;A LEFT
>52 JOYART = $80 ;A RIGHT
>53 ;
>54 ;
>55 IODIR = $281 ;PORT A DIRECTION REG.
>56 ;FOR EACH BIT, 1=OUTPUT, 0=INPUT.
>57 ;
>58 SWITCH = $282 ;PANEL SWITCHES (PORT B).
>59 * BIT MASKS FOR SWITCH-->

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ITIONS.

BUTTONS.


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>59 * BIT MASKS FOR SWITCH<->
>60 *-----
>61 SWIRES = $01 ;GAME RESET
>62 SWISEL = $02 ;GAME SELECT
>63 SWICOL = $08 ;TV TYPE(0=BW, 1=COL)
>64 SWIADF = $40 ;PLAYER A DIFFICULTY
>65 SWIBDF = $80 ; B
>66 ;
>67 IOBDIR = $283 ;PORT B DIRECTION REG.
>68 ;
>69 * 6532 READ-ONLY REGS
>70 *-----
>71 TIMER = $284 ;TIMER
>72 TIME64 = $296 ;TIMER/64.

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19 *****
20 * RAM DEFINITION & EQUATES *
21 *****
22 PUT MR.DO.EQU
>1 */MR.DO.EQU LAST EDIT:8/1/83
>2 *****
>3 * *
>4 * * * * *
>5 * * * * *
>6 * * * * *
>7 * * * * *
>8 * * * * *
>9 * * * * *
>10 * *
>11 *****
>12 * GAME CONTROL RAM *
>13 *-----*
>14 GAME = $80 ;B0-B3 = GAME NUM.
>15 ROUND = $81 ;B0-B3 = ROUND NUM.
>16 ;
>17 *****
>18 * SCORE DATA *
>19 *-----*
>20 SCORLO = $82 ;LO 2 SCORE DIGITS.
>21 SCORHI = $83 ;HI 2 SCORE DIGITS.
>22 ;
>23 FRAMEL = $84 ;FRAME COUNT LO.
>24 FRAMEH = $85 ;FRAME COUNT HI.
>25 ;
>26 *****
>27 * SOUND DATA *
>28 *-----*
>29 AIDX = $86 ;IDX TO CH A SOUND.
>30 BIDX = $87 ;IDX TO CH B SOUND.
>31 ADUR = $88 ;DURATION OF CH A SOUND.
>32 ;ZERO = GET NEXT NOTE.
>33 ;MINUS = NO SOUND ON.
>34 BDUR = $89 ;DURATION OF CH B SOUND.
>35 ;
>36 *****
>37 * MISC. STATUS BYTES--> *
>38 *****
>39 DIGINV = $8A ;NUM DIGGERS LEFT.
>40 ALPHA = $8B ;ALPHA MONSTER STATUS.
>41 ;B0-B2=IDX FOR CHANNEL SELECT.
>42 ;B3-B7=LETTER GOTTEN FLAGS.
>43 CHERRYT = $8C ;CHERRY TIMER/NOTE PTR.
>44 ;B0-B4=TIMER SINCE LAST CHERRY EAT
EN. ; (0=TIMER EXPIRED).
>45 ;B5-B7=NOTE IDX FOR NEXT CHERRY EA
TEN SOUND.
>46
>47 ;
>48 APFALL = $8D ;APPLE FALLING IDX.
>49 ;B7=1=NO APPLE FALLING.
>50 ;B4-B6=WHICH APPLE IS FALLING.
>51 ;B0-B3=STAGE TIMER.
>52 ANIM8 = $8E ;ANIMATION FLAGS.
>53 ;B7=MR DO BEING DRAGGED.
>54 ;B6=DIG1 BEING DRAGGED.
>55 ;B5=DIG2 BEING DRAGGED.
>56 ;B1=ALF MONSTER OUT.
>57 ;B0=MR DO IMG.FLIP/FLOP.
>58 FCOLOR = $8F ;FIELD (ORCHARD) COLOR.
>59 *****

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G).

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>59 *****
>60 *          CHERRY DATA          *
>61 *-----*
>62                                     ;8 BYTES ($90-$97).
>63 CHERRYC   =    $90               ;CHERRY CONTROLS FOR 8 BANDS.
>64                                     ;B0-B2 = CONTROL VALUE (REP/SPACIN
>65                                     ;B3-B6 = IDX TO CPOF TABLE.
>66                                     ;B7 = NO CHERRY/SOME CHERRY FLAG.
>67                                     ;
>68 *****
>69 *          ASYM FIELD DATA      *
>70 *-----*
>71                                     ;32 BYTES ($98-$B7).
>72 FR1L      =    $98               ;8 BANDS OF FR1 LEFT DATA.
>73 FR2L      =    $A0               ;8 BANDS OF FR2 LEFT DATA.
>74 FR2R      =    $A8               ;8 BANDS OF FR1 RIGHT DATA.
>75 FR1R      =    $B0               ;8 BANDS OF FR2 RIGHT DATA.
>76                                     ;
>77 LASTJY    =    $B8               ;LAST LEGAL JOY (MR.DO. DIR).
>78                                     ;
>79 *****
>80 *          MISSILE DATA          *
>81 *-----*
>82 MISLN     =    $B9               ;MIS LINENUM.
>83 MSBAND    =    $BA               ;MIS VERT POS.
>84                                     ;B0-B3 = LN OFFSET.
>85                                     ;B4-B6 = BAND NUM.
>86                                     ;B7 = ON/OFF FLAG.
>87                                     ;
>88 MISPOF    =    $BB               ;MIS HORIZ POS.
>89                                     ;B0-B6 = IDX TO POSTBL.
>90                                     ;B7 = MIS AVAILABLE FLAG.
>91                                     ;
>92 MISDIR    =    $BC               ;MIS DIRECTION.
>93                                     ;B0-B1 = MIS DIRECTION.
>94                                     ;ALSO DOUBLES AS TIME
>95                                     ;BEFORE PWRBALL AVAIL AGAIN.
>96                                     ;
>97                                     ;
>98 *****
>99 *          MR.DO & DIGGER DATA  *
>100 *-----*
>101 DOBAND    =    $BD               ;DIG VERT POS.
>102 DIGBAND   =    $BE               ;B0-B3 = LN OFFSET.
>103                                     ;B4-B6 = BAND NUM.
>104                                     ;B7= ON/OFF FLAG.
>105                                     ;
>106 DOPOF     =    $C0               ;DIG HORIZ POS.
>107 DIGPOF    =    $C1               ;B0-B6 = IDX TO POSTBL.
>108                                     ;
>109 DODAT      =    $C3               ;DIG DATA PTR.
>110 DIGDAT     =    $C4               ;
>111 DIGDIR    =    $C6               ;DIG CONTROL.
>112                                     ;B0-B1 = DIRECTION.
>113 DIGSPD     =    $C8               ;B7 = DIGGING FLAG.
>114                                     ;DIG SPEED.
>115                                     ;(IDX TO SPDTBL)
>116                                     ;B0= UP SPEED.
>117                                     ;B1= DOWN SPEED.
>118                                     ;B2= LEFT SPEED.
>119                                     ;B3= RIGHT SPEED.
>120                                     ;
>121 DIGTIM     =    $C9               ;DIG STAGE TIMER
>122
>123

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>124 DIGTIM = $CA ;DIG STAGE TIMER.
>125 DIGIQ = $CC ;DIG INTELLIGENCE.
>126 ;B0-B2=HOW MANY CCELLS TO GO
>127 ;BEFORE TRYING NEW DIR.
>128 MUX = $CE ;NUMO TO 2 FOR MUX MGR.
>129 ;
>130 ;
>131 *****
>132 * APPLE RAM *
>133 *****
>134 ;8 BYTES ($D0-$D7).
>135 APBAND = $D0 ;APPLE POS.
>136 ;B0-B3 = IMG TBL IDX.
>137 ;B4-B6 = BAND NUM.
>138 ;B7 = ON/GONE FLAG.
>139 ;
>140 APPOF = $D4 ;APPLE HORIZ POS.
>141 ;B0-B6 = IDX TO POSTBL.
>142 ;B7 = FALLING FLAG.
>143 PWRTIM = $D8 ;IDX TO PTIME FOR WHEN BALL AVAIL

>144 MODE = $DA ;GAME MODE.
>145 RANDOM = $D9 ;FREE RUNNING RANDOM #.
>146 DOINV = $DB ;NUM MR DO'S LEFT.
>147 ;
>148 *****
>149 * TEMPORARY (SHARED) RAM *
>150 *-----*
>151 ;36 BYTES ($DC-$FF).
>152 ;
>153 * RAM USED TO PAINT PLAYFIELD->
>154 *****
>155 PTR = $DC ;SA IMG PAGE FLAGS FOR 8 BANDS.
>156 ;
>157 BAND = $DD ;BAND NUM.
>158 ;
>159 * SPRITE A (DIG,APPLE) DISPLAY RAM
>160 * ($DE-$EE)
>161 *****
>162 LODATA = $DE ;LO ADDRS SA (8 BANDS).
>163 ADAT = $E5 ;LO ADDR FOR SA INDIRECT.
>164 HIDATA = $E6 ;HI DATA ADDRS FOR SA.
>165 ;$E7-$EE->
>166 APOF = $E7 ;SA POFS.
>167 ;
>168 * SPRITE B (MR DO,CHERRY) DISPLAY RAM
>169 * ($EF-$FF)
>170 *****
>171 LODATB = $EF ;LO ADDRS SB (8 BANDS).
>172 BDAT = $F6 ;LO ADDR FOR SB INDIRECT.
>173 HIDATB = $F7 ;HI DATA ADDR FOR SB.
>174 ;$F8-$FF->
>175 ;*****
>176 BPOF = $F8 ;SB POF VALUES FOR 8 BANDS.
>177 ;
>178 ;
>179 * TEMP VERTICAL INTERVAL RAM
>180 *-----*
>181 TEMP14 = $EA
>182 TEMP15 = $EB
>183 TEMP11 = $EC
>184 TEMP12 = $ED
>185 TEMP13 = $EE
>186 TEMP1 = $EF
>187 TEMP2 = $F0
>188 TEMP3 = $F1

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AGAIN.

>187	TEMP4	=	\$F2
>188	TEMP5	=	\$F3
>191	TEMP6	=	\$F4
>192	TEMP7	=	\$F5
>193	TEMP8	=	\$F6
>194	TEMP9	=	\$F7
>195	TEMP10	=	\$F8
>196			;
>197	* RAM FOR DISPLAYING 6 SPRITES->		
>198	* NOTE-THIS RAM PLUS TEMP1,2,3 DOES		
>199	* NOT CONFLICT WITH SA DISPLAY RAM.		
>200	*****		
>201	PD100K	=	\$F2
>202	PD10K	=	\$F4
>203	PD1K	=	\$F6
>204	PD100	=	\$F8
>205	PD10	=	\$FA
>206	PD1	=	\$FC
>207			;

```

>209 *****
>210 *
>211 *      *      *      *      *
>212 *      *      *      *      *
>213 *      *      *      *      *
>214 *      *      *      *      *
>215 *      *      *      *      *
>216 *      *      *      *      *
>217 *
>218 *****
>219 *      COLOR      EQUATES      *
>220 *-----*
>221
>222 BLACK      =      0
>223 WHITE      =      $0E
>224 RED        =      $22
>225 YELLOW     =      $1A
>226 GREEN      =      $D6
>227 ORANGE     =      $28
>228 BLUE       =      $9A
>229 PURPLE     =      $68
>230 BROWN      =      $12
>231 GOLD       =      $16
>232 LBLUE     =      $96
>233
>234 SCRCOL     =      BLACK      ; BK6ND COLOR OF ORCHARDS.
>235
>236 *****
>237 *      DIRECTION EQUATES -->      *
>238 *-----*
>239 * STARTING IDX$ FOR EACH DIR IN DIRTBL-->
>240 UPI         =      0
>241 DOWNI       =      4
>242 RIGHTI      =      8
>243 LEFTI       =      12
>244
>245 * DIRECTION VALUES-->
>246 UPD         =      0
>247 DOWND       =      1
>248 RIGHTD      =      2
>249 LEFTD       =      3
>250
>251 *****
>252 *      GAME MODES-->      *
>253 *****
>254 RESUM       =      $80      ; RESUME PLAY MODE (1 SEC BLACK).
>255 XTRADD      =      $70      ; EXTRA MR. DO. WON.
>256 TRACK      =      $50      ; ALT CPMD+ ORCH.
>257 GAMOVR     =      $40
>258 SELECT     =      $30      ; SELECT MODE.
>259 DODEAD      =      $20
>260 PLAY       =      $10
>261
>262 *****
>263 *      VERT INTERVAL TIMER EQUATES *
>264 *-----*
>265 TOPTIM      =      $A9      ; TOPVI TIMER VALUE.
>266 MIDTIM      =      $AD      ; TIME TO PAINT SCORE, EXTRA + SET R
>267
>268 BOTTIM      =      $9F      ; BOTVI TIMER VALUE.
>269 BOTVI       =      $202E
>270 ORG        =      $2FFC
>271
>272 MICE VECTORS.

```

AM UP.


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29 *****
30 * TOP VERTICAL INTERVAL *
31 *****
32 PUT MR.DO.TOPVI
>1 */MR.DO.TOPVI LASTED: 8/14/83
>2 *
>3 *****
>4 *APPLES GET 1/3 FRAMES IF 2 DIGS
>5 *ON ,ELSE 1/2 FRAMES IF 1 DIG ON.
>6 *****
>7 * BANK SWITCH FROM BOTVI->
>8 *-----
3000: EA >9 NOP
3001: EA >10 NOP
3002: EA >11 NOP
3003: 4C 12 30 >12 JMP TOP2 ;CONT W/TOPVI.
3006: EA >13 NOP
>14 * BANK SWITCH TO BOTVI-->
>15 *-----
>16 BVISW
3007: AD FB FF >17 LDA $FFFB
300A: 4C 2E 20 >18 JMP BOTVI $302E
300D: EA >19 NOP
>20 * SWITCH TO BANK 1 INIT RTN->
>21 *-----
>22 INITSW
300E: EA >23 NOP
300F: AD FB FF >24 LDA $FFFB
>25

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>27 TOP2
3012: EA >28 NOP
3013: 20 07 35 >29 JSR MUSIC ;MAINTAIN SOUNDS.
>30
>31 * KEEP A NUM 0,1,2 FOR MUX MGMT.
>32 *****
3016: A6 CE >33 LDX MUX
3018: E8 >34 INX
3019: E0 03 >35 CPX #3
301B: D0 02 >36 BNE OK2 ;ONLY 0,1,2.
301D: A2 00 >37 LDX #0
>38 OK2
301F: 86 CE >39 STX MUX
>40 ;
>41 *****
>42 * ANIMATION CHECKPOINT--> *
>43 *****
3021: A5 84 >44 LDA FRAM1
3023: 29 0F >45 AND #$0F
3025: C9 0F >46 CMP #$0F
3027: D0 2B >47 BNE ANIM9 ;J NT TIME TO ANIMATE.
>48 * ANIMATE BOTH DIGGERS->
>49 *****
3029: A2 01 >50 LDX #1
>51 TWODIG
302B: B5 C4 >52 LDA DIGDAT,X
302D: 29 01 >53 AND #1
302F: F0 05 >54 BEQ UPPTR
3031: D6 C4 >55 DEC DIGDAT,X
3033: 4C 38 30 >56 JMP NDIG
>57 UPPTR
3036: F6 C4 >58 INC DIGDAT,X
>59 NDIG
3038: CA >60 DEX
3039: 10 F0 >61 BPL TWODIG
>62 ;
>63 *****
>64 * ANIMATE MR DO--> *
>65 *****
303B: A5 8E >66 LDA ANIM8
303D: 29 01 >67 AND #1
303F: AA >68 TAX
3040: A5 8E >69 LDA ANIM8
3042: 49 01 >70 EOR #1
3044: 85 8E >71 STA ANIM8
3046: A0 03 >72 LDY #3 ;LEFT DIR.
3048: BD 48 32 >73 LDA MDPTL,X
304B: C4 BB >74 CPY LASTJY
304D: F0 03 >75 BEQ LSTLFT ;J LAST MOVE WAS LEFT.
304F: BD 4A 32 >76 LDA MDPTR,X
>77 LSTLFT
3052: 85 C3 >78 STA DODAT
>79 ANIM9
>80 *****
>81 * DO SCREEN PROCESSING ONLY IF *
>82 * ORCHARD IS TO BE SHOWN-> *
>83 *****
3054: A5 DA >84 LDA MODE
3056: C9 10 >85 CMP #PLAY
3058: F0 11 >86 BEQ ORK
305A: C9 20 >87 CMP #DODEAD
305C: F0 0D >88 BEQ ORK
305E: C9 50 >89 CMP #TRACK
3060: D0 06 >90 BNE NORK
3062: A5 85 >91 LDA FRAMEH

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3062:	A5 85	>91	LDA	FRAMEH	
3064:	29 03	>92	AND	#3	
3066:	D0 03	>93	BNE	ORK	
		>94	NORK		
3068:	4C 5C 32	>95	JMP	TITLE	;SKIP IT.
		>96	ORK		
		>97	*****		
		>98	* POS FM FOR CHANNEL SELECT-> *		
		>99	*****		
306B:	A5 8B	>100	LDA	ALPHA	
306D:	29 07	>101	AND	#7	
306F:	AA	>102	TAX		
3070:	BD EC 3C	>103	LDA	LETPOS,X	
3073:	AB	>104	TAY		
3074:	B9 C2 35	>105	LDA	POSTBL,Y	
3077:	A2 04	>106	LDX	#4	
3079:	20 D3 3C	>107	JSR	POS	
		>108			


```

>110 *****
>111 * SET UP SA DISPLAY RAM--> *
>112 *****
>113 * SET UP NULLS FOR ALL SA RAM-->
>114 *-----,
>115 * ALL SA IMGS ARE ON IMG1 PAGE FOR NOW-->
>116 ;
>117 SETRAM
307C: A9 00 >118 LDA #0
307E: 85 DC >119 STA PTR ;INIT HI PAGE TO IMG1.
3080: A0 02 >120 LDY #2 ;FAKE POF.
3082: A9 E4 >121 LDA #<NULL1
3084: A2 07 >122 LDX #7 ;8 BANDS
>123 ISA
3086: 95 DE >124 STA LDATA,X
3088: 94 E7 >125 STY APOF,X
308A: CA >126 DEX
308B: 10 F9 >127 BPL ISA
>128 ;
>129 * TEST IF FALLING APPLE FRAME->
>130 *-----
308D: A5 84 >131 LDA FRAM1
308F: 29 03 >132 AND #3 ;BOTH B0+B1 SET?
3091: C9 03 >133 CMP #3
3093: D0 2C >134 BNE NORMAP ;JP NO.
>135 ;ELSE FALLING APPLE IS ELIGIBLE->
3095: A5 8D >136 LDA APFALL
3097: 30 28 >137 BMI NORMAP ;JP NONE FALLING.
3099: 4A >138 LSR
309A: 4A >139 LSR
309B: 4A >140 LSR
309C: 4A >141 LSR
309D: AA >142 TAX ;X=WHICH AP IS FALLING.
309E: 86 F1 >143 STX TEMP3 ;SV IT.
30A0: B5 D0 >144 LDA APBAND,X
30A2: 4A >145 LSR
30A3: 4A >146 LSR
30A4: 4A >147 LSR
30A5: 4A >148 LSR
30A6: A8 >149 TAY ;AP BAND.
30A7: B5 D0 >150 LDA APBAND,X ;GET IMG PTR X2.
30A9: 0A >151 ASL
30AA: 29 1F >152 AND #$1F
30AC: AA >153 TAX
30AD: BD 3C 32 >154 LDA APIMG,X ;GET IMG ADDR LO.
30B0: 99 DE 00 >155 STA LDATA,Y
>156 ;SET PG PTR->
30B3: BD 3D 32 >157 LDA APIMG+1,X
30B6: A6 F1 >158 LDX TEMP3 ;GET WHICH APPLE.
30B8: B5 D4 >159 LDA APOF,X ;FALLING AP POF.
30BA: AA >160 TAX
30BB: BD C2 35 >161 LDA POSTBL,X
30BE: 99 E7 00 >162 STA APOF,Y
>163 ;
>164 * SET ALL APPLES UP FOR DISPLAY
>165 * UNLESS FALLING AP ALREADY THERE
>166 *****
>167 NORMAP
30C1: A2 03 >168 LDX #3 ;APPLE COUNT.
30C3: 86 DD >169 STX BAND ;TEMP.
>170 APRAM
30C5: A6 DD >171 LDX BAND
30C7: B5 D0 >172 LDA APBAND,X
30C9: 30 26 >173 BMI APR50 ;JP NO APPLE ON.
30CB: 4A >174 LSR

```



```

30CB: 4A      >174
30CC: 4A      >175
30CD: 4A      >176
30CE: 4A      >177
30CF: A8      >178
30D0: B9 DE 00 >179
30D3: C9 E4    >180
30D5: D0 1A    >181
30D7: B5 D0    >182
30D9: 29 0F    >183
30DB: 0A      >184
30DC: AA      >185
30DD: BD 3C 32 >186
30E0: 99 DE 00 >187
                 >188
30E3: BD 3D 32 >189
30E6: A6 DD    >190
30E8: B5 D4    >191
30EA: AA      >192
30EB: BD C2 35 >193
30EE: 99 E7 00 >194
                 >195
30F1: C6 DD    >196
30F3: 10 D0    >197
                 >198

```

APR50

```

LSR
LSR
LSR
TAY
LDA LODATA,Y
CMP #<NULL1
BNE APR50
LDA APBAND,X
AND #$0F
ASL
TAX
LDA APIMG,X
STA LODATA,Y

LDA APIMG+1,X
LDX BAND
LDA APOF,X
TAX
LDA POSTBL,X
STA APOF,Y

DEC BAND
BPL APRAM

```

```

;GET BAND.
;AP BAND NUM.

```

```

;JP SOMETHING ELSE THERE.

```

```

;KP IMG IDX.
;X 2.

```

```

;SET PAGE PTR->

```

```

;GET WHICH APPLE.

```

```

;

```

```

>200 * SET UP DIGGERS/BADGUYS-->
>201 *****
30F5: 20 BC 31 >202 JSR COMPET ;ARE DIGS COMPETING 4 DISPLAY?
30F8: F0 1B >203 BEQ DIG15 ;JP YES.
>204 ;
>205 * DIGGERS DO NOT COMPETE-->
>206 *****
>207 *****
>208 * REV 15 MUX CODE--> *
>209 * APPLES MUX AT 1/3 OR 1/2 IF *
>210 * ONLY 1 DIG COMPETING. *
>211 *****
30FA: A5 84 >212 LDA FRAMEL
30FC: 29 01 >213 AND #1
30FE: D0 71 >214 BNE DIG50 ;J APPLE FRAME(1/2).
>215 ;
3100: A5 BE >216 LDA DIGBAND
3102: 30 05 >217 BMI DIG12 ;J IF OFF.
3104: A2 00 >218 LDX #0
3106: 20 C0 31 >219 JSR TURNON
>220 DIG12
3109: A5 BF >221 LDA DIGBAND+1
310B: 30 05 >222 BMI DIG13 ;J IF OFF.
310D: A2 01 >223 LDX #1
310F: 20 C0 31 >224 JSR TURNON
>225 DIG13
3112: 4C 89 31 >226 JMP DIG99
>227 ;
>228 * ONLY 1 DIGGER CAN BE SHOWN->
>229 *****
>230 DIG15
>231 *****
>232 * REV 15 MUX CODE--> CONT. *
3115: A5 CE >233 LDA MUX
3117: F0 16 >234 BEQ APLFR5 ;J APPLE FRAME(1/3).
>235 ;
3119: A2 01 >236 LDX #1
311B: A5 84 >237 LDA FRAMEL
311D: 29 02 >238 AND #2 ;B1 DIG GETS PRIORITY.
311F: D0 01 >239 BNE DIG17 ;JP FOR DIG2.
3121: CA >240 DEX
>241 DIG17
3122: B5 BE >242 LDA DIGBAND,X
3124: 20 C0 31 >243 JSR TURNON ;SET UP DIG2.
>244 DIG18
3127: 4C 89 31 >245 JMP DIG99
>246 ;
>247 * APPLES HAVE PRIORITY THIS FRAME->
>248 * BUT SET UP ANY DIGS POSSIBLE *
>249 *W/O CONFLICT--> *
>250 *****
>251 APLFRM
312A: 20 BC 31 >252 JSR COMPET ;DIGS COMPETING?
312D: D0 42 >253 BNE DIG50 ;JP NO.
>254 ;ONLY 1 MIGHT BE ABLE TO SHOW.
>255 APLFR5
312F: A5 84 >256 LDA FRAMEL
3131: 29 02 >257 AND #2
3133: D0 1E >258 BNE DIG40 ;JP TO TRY DIG2 1ST.
3135: A2 00 >259 LDX #0
3137: 20 1E 32 >260 JSR TRYON ;TRY TO TURN ON DIG1.
313A: D0 08 >261 BNE DIG33 ;JP CAN'T BE TURNED ON.
313C: A2 00 >262 LDX #0 ;DIG 1 ON.
313E: 20 C0 31 >263 JSR TURNON ;TURN HIM ON.
3141: 4C 89 31 >264 JMP DIG99

```


3144:	A2 01	>265	DIG33	LDX #1	
3146:	20 1E 32	>267		JSR TRYON	;SEE IF DIG 2 CAN BE TURNED ON.
3149:	D0 3E	>268		BNE DIG99	;JP CAN'T TURN HIM ON EITHER.
314B:	A2 01	>269		LDX #1	;DIG2 ON.
314D:	20 C0 31	>270		JSR TURNON	;TURN HIM ON.
3150:	4C 89 31	>271		JMP DIG99	
		>272			
		>273	DIG40		
3153:	A2 01	>274		LDX #1	
3155:	20 1E 32	>275		JSR TRYON	;SEE IF DIG 2 CAN BE TURNED ON.
3158:	D0 08	>276		BNE DIG45	;JP CAN'T TURN HIM ON.
315A:	A2 01	>277		LDX #1	;DIG 2 ON.
315C:	20 C0 31	>278		JSR TURNON	
315F:	4C 89 31	>279		JMP DIG99	
		>280	DIG45		
3162:	A2 00	>281		LDX #0	
3164:	20 1E 32	>282		JSR TRYON	;SEE IF DIG1 CAN BE ON.
3167:	D0 20	>283		BNE DIG99	;JP CAN'T TURN HIM ON EITHER.
3169:	A2 00	>284		LDX #0	;DIG 1 ON.
316B:	20 C0 31	>285		JSR TURNON	
316E:	4C 89 31	>286		JMP DIG99	
		>287			
		>288			
		>289			
		>290			
		>291	DIG50		
3171:	A2 00	>291		LDX #0	
3173:	20 1E 32	>292		JSR TRYON	;SEE IF DIG 1 CAN BE ON..
3176:	D0 05	>293		BNE DIG60	;JP CAN'T TURN ON.
3178:	A2 00	>294		LDX #0	;DIG 1 ON.
317A:	20 C0 31	>295		JSR TURNON	;TURNON.
		>296	DIG60		
317D:	A2 01	>297		LDX #1	
317F:	20 1E 32	>298		JSR TRYON	;SEE IF DIG 2 CAN BE ON.
3182:	D0 05	>299		BNE DIG99	;JP CAN' TURN ON.
3184:	A2 01	>300		LDX #1	;DIG 2 ON.
3186:	20 C0 31	>301		JSR TURNON	
		>302			
		>303	DIG99		
3189:	4C 5C 32	>304		JMP TITLE	

* BOTH DIGS MAY BE SHOWN IF NO APPLE COMPETITION->

```

>306 * DISPLAY SORTING SUBROUTINES->
>307 *****
>308 * SEE IF 2 DIGGERS COMPETE FOR DISPLAY->
>309 *****
>310 COMPET
318C: A5 BE >311 LDA DIGBAND
318E: 10 01 >312 BPL COMP1 ;JP ON.
3190: 60 >313 RTS ;RET NE.
>314 COMP1
3191: 29 70 >315 AND #$70
3193: 85 EF >316 STA TEMP1 ;SV BAND.
3195: A5 BF >317 LDA DIGBAND+1
3197: 10 01 >318 BPL COMP15 ;JP ON.
3199: 60 >319 RTS ;RET NE.
>320 COMP15
319A: 29 70 >321 AND #$70
319C: 38 >322 SEC
319D: E5 EF >323 SBC TEMP1
319F: D0 01 >324 BNE COMP2 ;JP NOT ON SAME BAND.
31A1: 60 >325 RTS ;RET W/EQ.
>326 COMP2
31A2: C9 10 >327 CMP #$10
31A4: D0 0C >328 BNE COMP3
>329 ;
>330 * DIG2 IS 1 BAND ABOVE DIG1->
>331 *****
31A6: A5 BF >332 LDA DIGBAND+1
31A8: 29 0F >333 AND #$0F ;GET LN.
31AA: D0 03 >334 BNE CPETE ;J NZ.
31AC: A9 01 >335 LDA #1
31AE: 60 >336 RTS
>337 CPETE
31AF: A9 00 >338 LDA #0
31B1: 60 >339 RTS ;RET W/EQ.
>340 COMP3
31B2: C9 F0 >341 CMP #$F0
31B4: F0 01 >342 BEQ CPETE2
31B6: 60 >343 RTS ;ELSE RET NO COMPETE.
>344 * DIG1 IS 1 BAND ABOVE DIG2->
>345 *****
>346 CPETE2
31B7: A5 BE >347 LDA DIGBAND
31B9: 29 0F >348 AND #$0F
>349
31BB: D0 F2 >350 BNE CPETE ;RET W/Y COMPETING.
31BD: A9 01 >351 LDA #1
31BF: 60 >352 RTS
>353 ;
>354 * TURN ON A DIG IN DISPLAY RAM->
>355 * IN X=IDX TO WHICH DIGGER TO TURN ON.
>356 *****
>357 TURNON
31C0: B5 C4 >358 LDA DIGDAT,X ;GET DIGIMG IDX.
31C2: 29 0F >359 AND #$0F
31C4: A8 >360 TAY
31C5: A9 00 >361 LDA #0
31C7: C0 04 >362 CPY #4 ;IS SPRITE ON 1ST PAGE IMG'S?
31C9: 90 02 >363 BCC FIRST ;J ON PAGE 1.
31CB: A9 01 >364 LDA #1
>365 FIRST
31CD: 85 F1 >366 STA TEMP3 ;SV MASK FOR PTR.
>367 ;
31CF: B9 4C 32 >368 LDA DIGIMG,Y
31D2: 85 EF >369 STA TEMP1 ;SV DATA PTR. (LO)
31D4: B5 BE >370 LDA DIGBAND,Y

```



```

31D6: 85 F0 >371 STA TEMP2 ;SV BAND/LN.
31D8: 4A >372 LSR
31D9: 4A >373 LSR
31DA: 4A >374 LSR
31DB: 4A >375 LSR
31DC: A8 >376 TAY ;BAND.
31DD: 18 >377 CLC
>378 PTRBIT
31DE: 88 >379 DEY
31DF: 30 06 >380 BMI PTRDON
31E1: 18 >381 CLC
31E2: 06 F1 >382 ASL TEMP3 ;SET UP BIT FOR PAGE PTR.
31E4: 4C DE 31 >383 JMP PTRBIT
>384 PTRDON
31E7: A8 >385 TAY ;GET BAND NUM.
31E8: A5 F1 >386 LDA TEMP3 ;GET ADJUSTED MASK.
31EA: 05 DC >387 ORA PTR
31EC: 85 DC >388 STA PTR
>389
>390 ;
>391 ;SET UP POS FOR DISPLAY.
31EE: B5 C1 >391 LDA DIGPOF,X
31F0: AA >392 TAX ;
31F1: BD C2 35 >393 LDA POSTBL,X
31F4: 99 E7 00 >394 STA APOF,Y
>395 ;
31F7: A5 F0 >396 LDA TEMP2 ;GET BAND/LN.
31F9: 29 0F >397 AND #0F
31FB: D0 06 >398 BNE TURN5 ;JP NOT W/I A BAND.
31FD: A5 EF >399 LDA TEMP1 ;GET DATA PTR.
31FF: 99 DE 00 >400 STA LODATA,Y
3202: 60 >401 RTS
>402
>403 *****
>404 * NEED TWO BANDS FOR OBJ-->
>405 *****
>406 TURN5
3203: AA >406 TAX ;X=LN OFFSET.
3204: BD 43 36 >407 LDA TOPOFF,X
3207: 18 >408 CLC
3208: 65 EF >409 ADC TEMP1 ;ADD DATA PTR.
320A: 99 DE 00 >410 STA LODATA,Y ;SV DIG DATA PTR LO.
320D: A5 EF >411 LDA TEMP1 ;GET DATA PTR.
320F: 38 >412 SEC
3210: FD 53 36 >413 SBC BOTOFF,X
3213: 99 DD 00 >414 STA LODATA-1,Y ;SV DIG DATA PTR LO.
3216: A5 F1 >415 LDA TEMP3 ;GET PTR MASK.
3218: 4A >416 LSR ;SHIFT FOR DOWN 1 BAND.
3219: 05 DC >417 ORA PTR
321B: 85 DC >418 STA PTR
321D: 60 >419 RTS
>420 * TEST IF NULLS WHERE A DIG IS->
>421 * IN X= WHICH DIG TO TEST FOR.
>422 *****
>423 TRYON
321E: B5 BE >424 LDA DIGBAND,X
3220: 10 01 >425 BPL TRY1 ;JP IF ON.
3222: 60 >426 RTS ;RET NE.
>427 TRY1
3223: 4A >428 LSR
3224: 4A >429 LSR
3225: 4A >430 LSR
3226: 4A >431 LSR
3227: A8 >432 TAY ;BAND.
3228: B5 BE >433 LDA DIGBAND,X
322A: 29 0F >434 AND #0F ;W/I 1 BAND?
322C: F0 08 >435 BEQ TRY9 ;JP YES.
322E: B9 DD 00 >436 LDA LODATA-1,Y

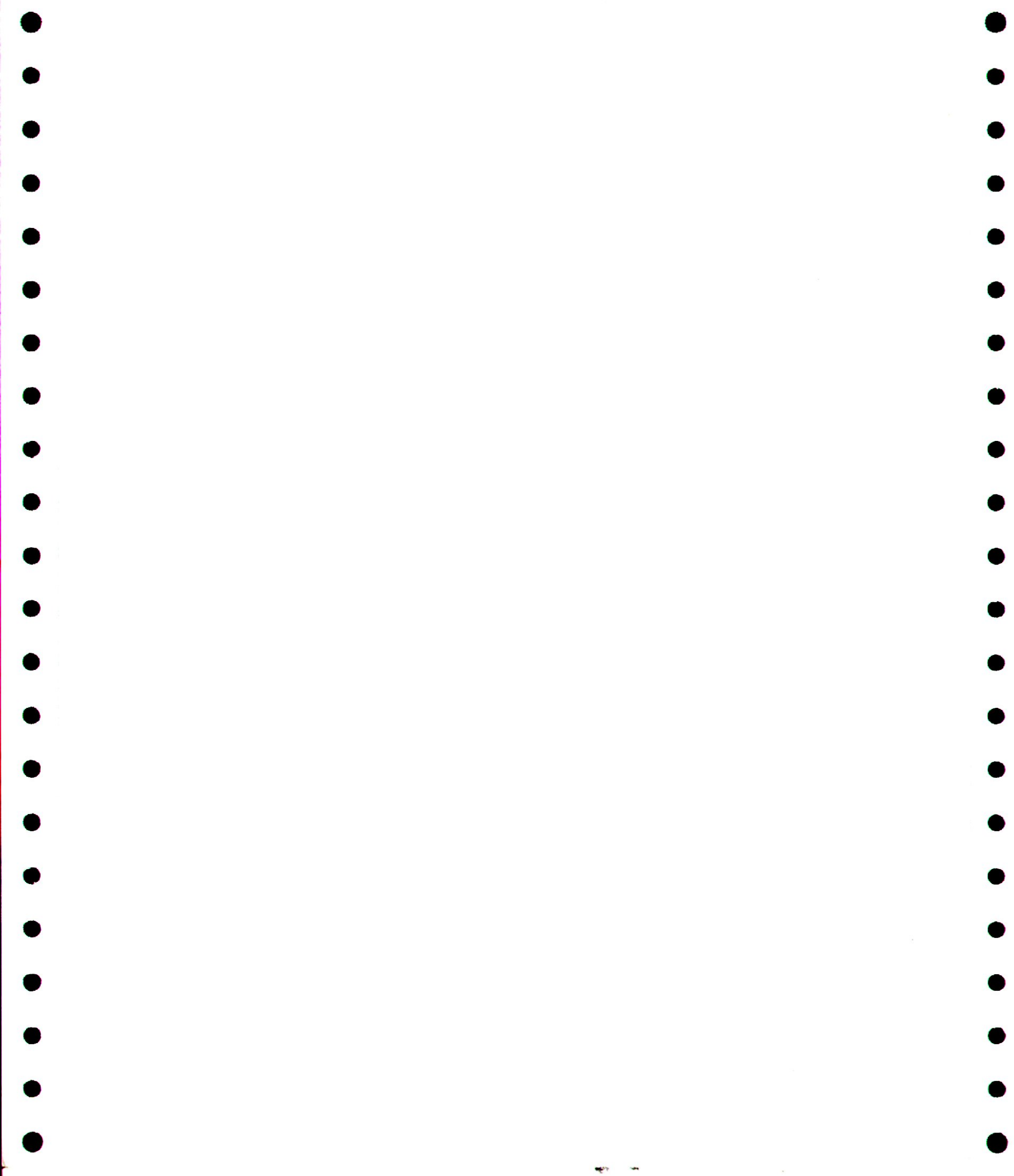
```

3231:	C9 E4	>437	CMP	#<NULL1	
3233:	F0 01	>438	BEQ	TRY9	;JP LOWER BAND OK.
3235:	60	>439	RTS		
		>440			
		TRY9			
3236:	B9 DE 00	>441	LDA	LODATA,Y	
3239:	C9 E4	>442	CMP	#<NULL1	
323B:	60	>443	RTS		
		>444			


```

>446 * APPLE IMAGE PTR TABLE->
>447 *****
>448 * BYTE 1=IMG ADR LO, BYTE 2=IMG PAGE.
>449 APIMG
>450 ;APPLE SITTING->
323C: 00 00 >451 DFB <APPLE1,0
>452 ;AP ROCKING LEFT->
323E: 0E 00 >453 DFB <APPLE2,0
>454 ;APPLE ROCKING RIGHT->
3240: 1C 00 >455 DFB <APPLE3,0
>456 ;APPLE FALLING ->
3242: 00 00 >457 DFB <APPLE1,0
>458 ;APPLE BREAKING STAGE 1->
3244: 2A 00 >459 DFB <APPLE4,0
>460 ;APPLE BREAKING STAGE 2->
3246: 38 00 >461 DFB <APPLE5,0
>462 ;
>463 ;DO FACES LEFT->
>464 MRDQIMG
>465 MDPTL
3248: 22 44 >466 DFB <MRDOLL,<MRDORL
>467 ;DO FACES RIGHT->
>468 MDPTR
324A: 66 88 >469 DFB <MRDORR,<MRDOLR
>470 DIGIMG
324C: 4F >471 DFB <DIGLR
324D: 70 >472 DFB <DIGLL
>473 ;REALLY DIGGING IMG->
324E: 92 >474 DFB <DUGLL
324F: B4 >475 DFB <DUGLR
>476 ;
>477 * DIGGING FACING LEFT->
3250: 00 >478 DFB <DUGRR
3251: 20 >479 DFB <DUGRL
>480 ;
>481 LETIMG
3252: 49 >482 DFB <LETRE ;LETTER E
3253: 49 >483 DFB <LETRE
3254: 6A >484 DFB <LETRX ;LETTER X
3255: 6A >485 DFB <LETRX
3256: 8B >486 DFB <LETRT ;LETTER T
3257: 8B >487 DFB <LETRT
3258: AC >488 DFB <LETRR ;LETTER R
3259: AC >489 DFB <LETRR
325A: CD >490 DFB <LETRA ;LETTER A
325B: CD >491 DFB <LETRA
>492 ;

```



```

34 *****
35 * TITLE SCREEN PAINTING FILE *
36 *****
37 PUT MR.DO.TITLE
>1 */MR.DO.TITLE LASTED 8/2/83.
>2 *****
>3 TITLE
>4 ENDMID
325C: AD 84 02 >5 LDA TIMER
325F: 30 FB >6 BMI ENDMID
>7 ;
>8 * TURN GUN BACK ON-->
>9 *****
3261: A9 40 >10 LDA #$40
3263: 85 02 >11 STA ATWAIT
3265: 85 01 >12 STA ATBLNK ;GUN ON.
3267: A9 AD >13 LDA #MIDTIM
>14 ;
3269: 8D 96 02 >15 STA TIME64 ;SET TIME INCASE ORCHARD SCREEN.
326C: A5 DA >16 LDA MODE
326E: C9 30 >17 CMP #SELECT
3270: D0 0D >18 BNE TEST2
>19 ;
>20 * "MR DO! GAME 1" -->
>21 *****
3272: A9 B6 >22 LDA #<MRDOT1
3274: A2 C3 >23 LDX #<GAMETB
3276: A0 BD >24 LDY #<NULLTB
3278: 4C CE 32 >25 JMP TITL12
>26 ;
>27 * MR DO DANCE SPD BY GAME NUM->
>28 GAMSPD
327B: 20 10 0B >29 DFB $20,$10,$0B,$04
327E: 04 >30 ;
>31 TEST2
327F: C9 10 >32 CMP #PLAY
3281: F0 1A >33 BEQ ORKSCR
3283: C9 20 >34 CMP #DODEAD
3285: F0 16 >35 BEQ ORKSCR
>36 ;
3287: C9 40 >37 CMP #GAMOVR
3289: F0 34 >38 BEQ TITLE1 ;JP IF GAME OVER SCREEN.
328B: C9 70 >39 CMP #XTRADO
328D: F0 11 >40 BEQ TITLE0
>41 ;
328F: C9 80 >42 CMP #RESUM
3291: F0 60 >43 BEQ TITLE3
>44 ;
>45 ;
3293: C9 50 >46 CMP #TRACK
3295: D0 06 >47 BNE ORKSCR ;J N.
>48 ;
3297: A5 85 >49 LDA FRAMEH
3299: 29 03 >50 AND #3
329B: F0 4D >51 BEQ TITLE2 ;SHOW COLECO PRES MRDO.
>52 ORKSCR
329D: 4C 8B 33 >53 JMP ORCHARD
>54 ;
>55 * SET UP FOR "EXTRA MR DO!"
>56 *****
>57 TITLE0
32A0: A9 CF >58 LDA #<LETTBL ;EXTRA.
32A2: 85 EC >59 STA TEMP11
32A4: A9 B6 >60 LDA #<MRDOT1 ;MR.DO!

```



```

32A4: A7 B8 >60
32A6: B5 ED >61
32A8: A9 BD >62
32AA: B5 EE >63
32AC: A0 66 >64
32AE: A5 84 >65
32B0: 29 10 >66
32B2: D0 02 >67
32B4: A0 88 >68
32B6: 84 EA >69
32B8: A9 39 >70
32BA: B5 EB >71
32BC: 4C 03 33 >72
32BF: A5 85 >73
32C1: 29 03 >74
32C3: F0 03 >75
32C5: 4C 8B 33 >76
32C8: A9 BD >77
32CA: A2 C3 >78
32CC: A0 C9 >79
32CE: B5 EC >80
32D0: B6 ED >81
32D2: B4 EE >82
32D4: A0 22 >83
32D6: A5 84 >84
32D8: A6 80 >85
32DA: 3D 7B 32 >86
32DD: D0 02 >87
32DF: A0 44 >88
32E1: B4 EA >89
32E3: A9 39 >90
32E5: B5 EB >91
32E7: 4C 03 33 >92
32EA: A9 AA >93
32EC: A2 B0 >94
32EE: A0 B7 >95
32F0: 4C CE 32 >96
32F3: A9 BD >97
32F5: B5 EC >98
32F7: B5 ED >99
32F9: B5 EE >100
32FB: A9 34 >101
32FD: B5 EA >102
32FF: A9 39 >103
3301: B5 EB >104

LDA #<MRDOTB ;MR.DD
LDA #<NULLTB ;NULL
STA TEMP13
;ANIMB MR DO IMG->
LDY #<MRDORR
LDA FRAMEL
AND #10
BNE IMG5
LDY #<MRDOLR
IMG5
STY TEMP14
LDA #>MRDOLL
STA TEMP15
JMP TITLE9

* TITLE SCREEN
*****
TITLE1
LDA FRAMEH
AND #3
BEQ TITL11
JMP ORCHARD

* "GAME OVER" SCREEN->
*****
TITL11
LDA #<NULLTB ;NULL
LDX #<GAMETB ;GAME
LDY #<OVERTB ;OVER

* SET UP DANCE SPEED-->
*****
TITL12
STA TEMP11
STX TEMP12
STY TEMP13
LDY #<MRDOLL
LDA FRAMEL
LDX GAME
AND GAMSPD,X
BNE IMG6
LDY #<MRDORL
IMG6
STY TEMP14
LDA #>MRDOLL
STA TEMP15
JMP TITLE9

* "COLECO PRESENTS MR DO!" SCREEN->
*****
TITLE2
LDA #<COLECO ;COLECO
LDX #<PRESNT ;PRESENTS
LDY #<MRDOTB ;MRDO.
JMP TITL12

TITLE3
LDA #<NULLTB
STA TEMP11
STA TEMP12
STA TEMP13
LDA #<NULLB
STA TEMP14
LDA #>NULLB
STA TEMP15 ;NO DO.

```

```

>126 TITLE9
>127
3303: A9 0E >128 LDA #WHITE
3305: 85 06 >129 STA ATACOL
3307: 85 07 >130 STA ATBCOL
>131
>132 * SET UP FOR TOP WORD -->
>133 *****
3309: A5 EC >134 LDA TEMP11 ;GET TBL PTR LO.
330B: A2 3C >135 LDX #>DATA2
330D: 20 DB 39 >136 JSR SPRIT6
>137
3310: A2 17 >138 LDX #23
>139 HOLDUP
3312: 85 02 >140 STA ATWAIT
3314: CA >141 DEX
3315: 10 FB >142 BPL HOLDUP
>143
3317: 20 8B 3F >144 JSR SCORE
>145
>146
331A: A9 98 >147 LDA #$98
331C: 85 06 >148 STA ATACOL
331E: 85 07 >149 STA ATBCOL
>150
>151 * SET UP FOR MIDDLE WORD-->
>152 *****
3320: A5 ED >153 LDA TEMP12
3322: A2 3C >154 LDX #>DATA2
3324: 20 DB 39 >155 JSR SPRIT6
>156
3327: A2 14 >157 LDX #20
>158 HOLD7
3329: 85 02 >159 STA ATWAIT
332B: CA >160 DEX
332C: 10 FB >161 BPL HOLD7
>162
332E: 20 8B 3F >163 JSR SCORE
>164
3331: A9 28 >165 LDA #$28
3333: 85 06 >166 STA ATACOL
3335: 85 07 >167 STA ATBCOL
>168
>169 * SET UP FOR BOTTOM WORD-->
>170 *****
3337: A5 EE >171 LDA TEMP13
3339: A2 3C >172 LDX #>DATA2
333B: 20 DB 39 >173 JSR SPRIT6
>174
333E: A2 1C >175 LDX #28
>176 HOLD9
3340: 85 02 >177 STA ATWAIT
3342: A5 DA >178 LDA MODE
3344: C9 30 >179 CMP #SELECT
3346: D0 0B >180 BNE NOTSEL
>181
3348: A4 80 >182 LDY GAME ;SET UP A DIGIT->
334A: B9 E9 38 >183 LDA SCORTB+1,Y ;GET NUM.
334D: 85 F8 >184 STA PD100
334F: A9 38 >185 LDA #>DIGITS
3351: 85 F9 >186 STA PD100+1
>187 NOTSEL
3353: CA >188 DEX
3354: 10 EA >189 BPL HOLD9
>190

```



```

>190
3356: 20 BB 3F >191 JSR SCORE
>192
3359: A2 2D >193 LDX #45
>194 HOLD10
335B: 85 02 >195 STA ATWAIT
335D: CA >196 DEX
335E: 10 FB >197 BPL HOLD10
>198
>199
3360: A9 0E >200 LDA #WHITE
3362: 85 06 >201 STA ATACOL
>202
>203 * PAINT A MR DO IMAGE--->
>204 *****
3364: A9 00 >205 LDA #0 ;PAINT A DO.
3366: 85 25 >206 STA ATASEL
3368: 85 26 >207 STA ATBSEL ;SELECT IMMEDIATE MODE.
336A: 85 04 >208 STA ATACTL
>209
336C: A4 C0 >210 LDY DOPOF
336E: B9 C2 35 >211 LDA POSTBL,Y
3371: A2 00 >212 LDX #0 ;SA.
3373: 20 D3 3C >213 JSR POS
3376: A0 0F >214 LDY #15
>215 DO1
3378: B1 EA >216 LDA (TEMP14),Y ;GET IMG.
337A: 85 02 >217 STA ATWAIT
337C: 85 1B >218 STA ATADAT
337E: 88 >219 DEY
337F: 10 F7 >220 BPL DO1
>221
>222 ;DELAY
3381: A2 0F >223 LDX #15
>224 WAIT5
3383: 85 02 >225 STA ATWAIT
3385: CA >226 DEX
3386: 10 FB >227 BPL WAIT5
>228
3388: 4C 07 30 >229 JMP BVISW

```

```

39 *****
40 * ORCHARD SCREEN SETUP FILE *
41 *****
42 PUT MR.DO.DISPLAY
>1 * MR.DO.DISPLAY LASTED 8/13/83.
>2 *****
>3 * MAIN DISPLAY
>4 * SHOW SCORE,EXTRA & ORCHARD->
>5 *****
>6 *
>7 * PAINT 6 DIGIT SCORE
>8 *-----
>9 ORCHARD
338B: 85 2B >10 STA ATREMV ;CLR INCR FOR FM.
>11 ;
338D: A9 38 >12 LDA #>DATA1
338F: 85 F3 >13 STA PD100K+1
3391: 85 F5 >14 STA PD10K+1
3393: 85 F7 >15 STA PD1K+1
3395: 85 F9 >16 STA PD100+1
3397: 85 FB >17 STA PD10+1
3399: 85 FD >18 STA PD1+1
>19 ;
339B: A9 90 >20 LDA #<ZERO
339D: 85 FC >21 STA PD1 ;LO DIG = 0.
339F: A9 E0 >22 LDA #<BLANK
33A1: 85 F2 >23 STA PD100K ;HI DIG=BLANK.
33A3: A5 B2 >24 LDA SCORLO
33A5: 29 0F >25 AND #$0F
33A7: A8 >26 TAY
33A8: B9 E8 38 >27 LDA SCORTB,Y
33AB: 85 FA >28 STA PD10
33AD: A5 B2 >29 LDA SCORLO
33AF: 4A >30 LSR
33B0: 4A >31 LSR
33B1: 4A >32 LSR
33B2: 4A >33 LSR
33B3: A8 >34 TAY
33B4: B9 E8 38 >35 LDA SCORTB,Y
33B7: 85 FB >36 STA PD100
>37 ;
33B9: A5 B3 >38 LDA SCORHI
33BB: 29 0F >39 AND #$0F
33BD: A8 >40 TAY
33BE: B9 E8 38 >41 LDA SCORTB,Y
33C1: 85 F6 >42 STA PD1K
33C3: A5 B3 >43 LDA SCORHI
33C5: 4A >44 LSR
33C6: 4A >45 LSR
33C7: 4A >46 LSR
33C8: 4A >47 LSR
33C9: A8 >48 TAY
33CA: B9 E8 38 >49 LDA SCORTB,Y
33CD: 85 F4 >50 STA PD10K
>51 ;
33CF: A9 1A >52 LDA #YELLOW
33D1: 85 06 >53 STA ATACOL
33D3: 85 07 >54 STA ATBCOL
33D5: 20 BB 3F >55 JSR SCORE ;PAINT NUMBERS
>56 ;
>57 * PAINT "EXTRA" W/REV VIDEO FOR-
>58 * LETTERS ALREADY GOTTEN-->
>59 *****
33D8: A0 05 >60 LDY #5
33DA: A2 0B >61 LDX #11

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33DC: A5 8B >62 LDA ALPHA ;GET ALF FLAGS.
33DE: 85 EF >63 STA TEMP1
ALFSET LDA #>DATA2
33E0: A9 3C >65 STA PD100K,X
33E2: 95 F2 >66 DEX
33E4: CA >67 ASL TEMP1
33E5: 06 EF >68 LDA LETTBL,Y
33E7: B9 CF 39 >69 BCC NORM
33EA: 90 03 >70 LDA REVTBL,Y ;GET REV VIDEO.
33EC: B9 D5 39 >71 NORM
>72 STA PD100K,X
33EF: 95 F2 >73 DEX
33F1: CA >74 DEY
33F2: 88 >75 BPL ALFSET
33F3: 10 EB >76
>77 ;
>78 *PAINT CHANNEL SELECT W/FLD MIS->
>79 *****
33F5: A9 02 >80 LDA #2
33F7: 85 02 >81 STA ATWAIT
33F9: 85 1F >82 STA ATENFM ;FM ON.
>83 ;
33FB: A9 FF >84 LDA #$FF
33FD: 85 0F >85 STA ATFR2 ;THIN LINE.
33FF: A9 96 >86 LDA #$96 ;DRK BLUE.
3401: 85 08 >87 STA ATFCOL
3403: A9 1C >88 LDA #$1C
3405: 85 06 >89 STA ATACOL
3407: 85 07 >90 STA ATBCOL
3409: A9 00 >91 LDA #0
>92 ;
340B: 85 02 >93 STA ATWAIT
340D: 85 0F >94 STA ATFR2
>95 ;DO 6 SPRITES W/O POS->
340F: 20 AF 3F >96 JSR SCORE1 ;PAINT EXTRA.
>97 ;
3412: A9 FF >98 LDA #$FF
3414: 85 02 >99 STA ATWAIT
3416: 85 0F >100 STA ATFR2 ;THIN LINE.
3418: A9 00 >101 LDA #0
>102 ;
341A: 85 1F >103 STA ATENFM ;FM OFF.
341C: A9 00 >104 LDA #0
341E: 85 25 >105 STA ATASEL
3420: 85 26 >106 STA ATBSEL ;RESET SELECT REGS.
3422: 85 04 >107 STA ATACTL
3424: 85 05 >108 STA ATBCTL
>109 ;
3426: 85 02 >110 STA ATWAIT
3428: A9 00 >111 LDA #BLACK
342A: 85 08 >112 STA ATFCOL ;THIN LINE OFF.
>113 ;
>114 ;
>115 * POS SA MIS FOR POWERBALL->
>116 *****
342C: A5 DA >117 LDA MODE
342E: C9 10 >118 CMP #PLAY
3430: D0 0E >119 BNE NOPWR
3432: A5 BA >120 LDA MSBAND ;PWRBALL ON?
3434: 30 0A >121 BMI NOPWR ;J N.
3436: A4 BB >122 LDY MISPOF
3438: B9 C2 35 >123 LDA POSTBL,Y
343B: A2 02 >124 LDX #2
343D: 20 D3 3C >125 JSR POS ;POS SA.
>126 NOPWR
>127 ;

```

```

>129 *****
>130 * SET UP SPRITE B DISPLAY RAM *
>131 *****
>132 ;
>133 * SET UP CHERRY DISPLAY RAM-->
>134 *-----
3440: A2 07 >135 LDX #7
>136 ICHERRY
>137 ;
3442: B5 90 >138 LDA CHERRYC,X
3444: 10 16 >139 BPL CHERRY5 ;JP IF NO CHERRY IN BAND.
>140 * THERE IS A CHERRY IN BAND,SET UP POF+IMAGE PTR.->
>141 *****
3446: 29 7F >142 AND #$7F
3448: 4A >143 LSR
3449: 4A >144 LSR
344A: 4A >145 LSR
344B: A8 >146 TAY ;GIVE Y 4 BIT IDX TO POS TABLE.
344C: B9 63 36 >147 LDA CHRPOS,Y ;GET IDX TO POS TBL.
344F: A8 >148 TAY
3450: B9 C2 35 >149 LDA POSTBL,Y
3453: 95 F8 >150 STA BPOF,X ;CHERRY POS.
3455: A9 00 >151 LDA #<CHERRY
3457: 95 EF >152 STA LODATB,X
3459: 4C 64 34 >153 JMP CDAT
>154 ;
>155 * MUX CHERRY (SB)W/NULL FOR NOW.
>156 ;
>157 * IF MR DO ON BAND USE HIM,ELSE USE BLANK(NULL)->
>158 *****
>159 CHERRY5
345C: A9 02 >160 LDA #02 ;FAKE POF.
345E: 95 F8 >161 STA BPOF,X
3460: A9 34 >162 LDA #<NULLB ;NULL IMG ON SB IMG PAGE.
3462: 95 EF >163 STA LODATB,X
>164 CDAT
3464: CA >165 DEX
3465: 10 DB >166 BPL ICHERRY
>167 ;

```



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>169 *****
>170 * HANDLE MR.DO MUX--> *
>171 *****
>172 * PUT MR DO RAM IN PLACE-->
3467: A5 BD >173 LDA DOBAND
3469: 10 03 >174 BPL FTEST ;JP IF DO IS ON.
346B: 4C E1 34 >175 JMP PWAIT
>176 FTEST
346E: A5 84 >177 LDA FRAMEL
3470: 29 01 >178 AND #1
3472: F0 03 >179 BEQ DOTIME ;JP MR DO ON THIS FRAME.
3474: 4C A9 34 >180 JMP NODO ;MD NOT ON THIS FRAME.
>181 DOTIME
3477: A5 BD >182 LDA DOBAND
3479: 4A >183 LSR
347A: 4A >184 LSR
347B: 4A >185 LSR
347C: 4A >186 LSR
347D: 29 07 >187 AND #7
347F: AA >188 TAX ;MR DO BAND NUM.
3480: A4 C0 >189 LDY DOPOF ;GET MD POS TBL IDX.
3482: B9 C2 35 >190 LDA POSTBL,Y
3485: 95 F8 >191 STA BPOF,X
>192 ;
>193 * DECIDE IF 2 BANDS ARE NEEDED-->
3487: A5 BD >194 LDA DOBAND
3489: 29 0F >195 AND #$0F ;KEEP DATA OFFSET.
348B: F0 15 >196 BEQ BAND1 ;JP NO OFFSET.
348D: A8 >197 TAY
348E: B9 43 36 >198 LDA TOPOFF,Y
3491: 18 >199 CLC
3492: 65 C3 >200 ADC DODAT
3494: 95 EF >201 STA LODATB,X ;SET UP DATA PTR HI BAND.
>202 ;
3496: CA >203 DEX
3497: A5 C3 >204 LDA DODAT ;DATA PTR LO.
3499: 38 >205 SEC
349A: F9 53 36 >206 SBC BOTOFF,Y
349D: 95 EF >207 STA LODATB,X ;SET UP DATA PTR LO BAND.
349F: 4C E1 34 >208 JMP PWAIT
>209 BAND1
34A2: A5 C3 >210 LDA DODAT ;MD DATA PTR LO.
34A4: 95 EF >211 STA LODATB,X
34A6: 4C E1 34 >212 JMP PWAIT
>213 ;
>214 * NOT MR DO NORMAL FRAME-->
>215 *****
>216 NODO
34A9: A5 BD >217 LDA DOBAND
34AB: 4A >218 LSR
34AC: 4A >219 LSR
34AD: 4A >220 LSR
34AE: 4A >221 LSR
34AF: 29 07 >222 AND #7 ;GET BAND.
34B1: AA >223 TAX
34B2: B5 90 >224 LDA CHERRYX,X
34B4: 30 2B >225 BMI PWAIT ;JP CHERRY ON THIS BAND.
34B6: A5 BD >226 LDA DOBAND
34B8: 29 0F >227 AND #$0F
34BA: F0 1A >228 BEQ MDON ;JP IF LN=0 (TURN MD ON.)
34BC: A8 >229 TAY ;Y=LN OFFSET.
34BD: CA >230 DEX ;1 BAND LESS.
34BE: B5 90 >231 LDA CHERRYX,X
34C0: 30 1F >232 BMI PWAIT ;JP CHERRY ON IN LOWER BAND.
34C2: EB >233 INX

```

34C3:	B9 43 36	>234	LDA	TOPOFF, Y	
34C6:	18	>235	CLC		
34C7:	65 C3	>236	ADC	DODAT	
34C9:	95 EF	>237	STA	LODATB, X	
34CB:	A5 C3	>238	LDA	DODAT	
34CD:	38	>239	SEC		
34CE:	F9 53 36	>240	SBC	BOTOFF, Y	
34D1:	95 EE	>241	STA	LODATB-1, X ; LOWER BAND IMG.	
34D3:	4C DA 34	>242	JMP	MDPOF	
		>243			MDON
34D6:	A5 C3	>244	LDA	DODAT	
34D8:	95 EF	>245	STA	LODATB, X ; MD IMG.	
		>246			MDPOF
34DA:	A4 C0	>247	LDY	DOPOF	
34DC:	B9 C2 35	>248	LDA	POSTBL, Y	
34DF:	95 F8	>249	STA	BPOF, X	
		>250			

	>252	PWAIT	
	>253	PW3	
34E1: AD 84 02	>254	LDA	TIMER
34E4: 30 FB	>255	BMI	PW3
	>256		
34E6: 85 02	>257	STA	ATWAIT
	>258		
34E8: A9 80	>259	LDA	#\$80
34EA: 85 0D	>260	STA	ATFR0
34EC: A9 FF	>261	LDA	#\$FF
34EE: 85 0E	>262	STA	ATFR1
34F0: 85 0F	>263	STA	ATFR2
34F2: A5 8F	>264	LDA	FCOLOR
	>265		;FLD ON->
34F4: 85 08	>266	STA	ATFCOL
	>267		;FLD OFF 2 LINES->
34F6: 85 02	>268	STA	ATWAIT
34F8: A9 00	>269	LDA	#BLACK
34FA: 85 08	>270	STA	ATFCOL
34FC: 85 02	>271	STA	ATWAIT
	>272		
34FE: A9 39	>273	LDA	#>SBIMG
3500: 85 F7	>274	STA	HIDATB
	>275		;PAGE OF SB IMAGES.
3502: 85 2B	>276	STA	ATREMV
	>277		;SET SB HI DATA PTR.
	>278		;ALL ON SAME PG FOR NOW.
	>279		;CLR INCR.
	>280		
3504: 4C FE 3C	>281	JMP	PAINT
			;PAINT THE SCREEN.

 * GO PAINT ORCHARD + INVENTORY-->

```

44 *****
45 * SOUND & MUSIC CONTROL FILE *
46 *****
47 PUT MR.DO.MUSIC
>1 */ MR.DO.MUSIC LASTED: 7/26/83.
>2 *****
>3 * SOUND CONTROL ROUTINE--> *
>4 *****
3507: A4 B9 >5 MUSIC LDY BDUR
3509: 10 03 >6 BPL MUS2 ;JP IF MUSIC ON.
350B: 4C 91 35 >7 JMP SOUND
>8 MUS2
350E: D0 3A >9 BNE MUS25 ;JP NOTE NOT DONE.
3510: A4 B7 >10 LDY BIDX
3512: A2 0C >11 LDX #$0C
3514: B9 2D 37 >12 LDA BMUSFW,Y
3517: C9 FF >13 CMP #$FF ;SONG DONE?
3519: F0 26 >14 BEQ MUS15 ;JP YES.
351B: B9 2D 37 >15 LDA BMUSFW,Y
351E: 30 02 >16 BMI MUS5
3520: A2 04 >17 LDX #$04
>18 MUS5
3522: 86 16 >19 STX ATBWAV ;NEW WAVE.
3524: 85 18 >20 STA ATBDIV ;NEW FREQ.
3526: B9 8A 37 >21 LDA BMUSVT,Y
3529: 29 3F >22 AND #$3F
352B: 85 B9 >23 STA BDUR
352D: B9 8A 37 >24 LDA BMUSVT,Y
3530: 4A >25 LSR
3531: 4A >26 LSR
3532: 4A >27 LSR
3533: 4A >28 LSR
3534: 4A >29 LSR
3535: 4A >30 LSR
3536: AA >31 TAX
3537: BD E7 37 >32 LDA VOLTBL,X
353A: 85 1A >33 STA ATBVOL ;NEW VOL.
353C: E6 B7 >34 INC BIDX
353E: 4C 4C 35 >35 JMP MUS50 ;GO DO CH.A.
>36 MUS15
3541: A2 00 >37 LDX #0
3543: 86 1A >38 STX ATBVOL ;SONG OVER.
3545: CA >39 DEX
3546: 86 B9 >40 STX BDUR
3548: 30 02 >41 BMI MUS50
>42 MUS25
354A: C6 B9 >43 DEC BDUR
>44 ;DO CH. A MUSIC-->
>45 MUS50
354C: A4 88 >46 LDY ADUR
354E: 30 71 >47 BMI SND99 ;JP NOT ON.
3550: D0 3A >48 BNE MUS75 ;JP NOTE NOT DONE.
3552: A4 86 >49 LDY AIDX
3554: A2 0C >50 LDX #$0C
3556: B9 73 36 >51 LDA AMUSFW,Y
3559: C9 FF >52 CMP #$FF ;SONG DONE?
355B: F0 26 >53 BEQ MUS65 ;JP YES.
355D: B9 73 36 >54 LDA AMUSFW,Y
3560: 30 02 >55 BMI MUS55
3562: A2 04 >56 LDX #$04
>57 MUS55
3564: 86 15 >58 STX ATAWAV ;NEW WAVE.
3566: 85 17 >59 STA ATADIV ;NEW FREQ.
3568: B9 D0 36 >60 LDA AMUSVT,Y
356A: 29 3F >61 AND #$3F

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356D: 85 88      >62      STA  ADUR      ;NEW DUR.
356F: B9 D0 36  >63      LDA  AMUSVT,Y
3572: 4A         >64      LSR
3573: 4A         >65      LSR
3574: 4A         >66      LSR
3575: 4A         >67      LSR
3576: 4A         >68      LSR
3577: 4A         >69      LSR
3578: AA         >70      TAX
3579: BD E7 37  >71      LDA  VOLTBL,X
357C: 85 19      >72      STA  ATAVOL
357E: E6 86      >73      INC  AIDX
3580: 4C C1 35  >74      JMP  SND99
                 >75      MUS65
3583: A2 00      >76      LDX  #0
3585: 86 19      >77      STX  ATAVOL
3587: CA         >78      DEX
3588: 86 88      >79      STX  ADUR      ; SONG OFF.
358A: D0 35      >80      BNE  SND99
                 >81      MUS75
358C: C6 88      >82      DEC  ADUR
358E: 4C C1 35  >83      JMP  SND99
                 >84      *****
                 >85      * NO MUSIC PLAYING,CHK SOUNDS *
                 >86      *****
                 >87      SOUND
3591: A4 88      >88      LDY  ADUR
3593: 30 2C      >89      BMI  SND99      ;JP NO SOUND ON.
3595: D0 28      >90      BNE  SND80      ;JP SOUND NOT DONE.
3597: A4 86      >91      LDY  AIDX
3599: B9 EB 37  >92      LDA  SNDTBL,Y
359C: 85 19      >93      STA  ATAVOL
359E: D0 06      >94      BNE  SND5      ;JP SND NOT OVER.
35A0: A9 FF      >95      LDA  #$FF
35A2: 85 88      >96      STA  ADUR
35A4: D0 1B      >97      BNE  SND99
                 >98      SND5
35A6: 4A         >99      LSR
35A7: 4A         >100     LSR
35A8: 4A         >101     LSR
35A9: 4A         >102     LSR
35AA: 85 15      >103     STA  ATAWAV      ;NEW WAV.
35AC: B9 EC 37  >104     LDA  SNDTBL+1,Y
35AF: 85 17      >105     STA  ATADIV      ;NEW FREQ.
35B1: 4A         >106     LSR
35B2: 4A         >107     LSR
35B3: 4A         >108     LSR
35B4: 4A         >109     LSR
35B5: 4A         >110     LSR
35B6: 85 88      >111     STA  ADUR      ;NEW DUR.
35B8: E6 86      >112     INC  AIDX
35BA: E6 86      >113     INC  AIDX      ;UP NOTE PTR.
35BC: 4C C1 35  >114     JMP  SND99
                 >115     SND80
35BF: C6 88      >116     DEC  ADUR
                 >117     SND99
35C1: 60         >118     RTS

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```

49 *****
50 * POSITION LATCH VALUES FILE *
51 *****
52 PUT POSITION.TABLE
>1 */ POSITION VALUES, LASTED: 1/27/83
>2 * LAST EDIT 1/11/83
>3 ;
>4 *****
>5 * TABLE OF VALUES FOR POSITIONING
>6 * HI NIBBLE = INCREMENT
>7 * LO NIBBLE = COUNTDOWN DELAY BEFORE LATCH.
>8 *****
>9 POSTBL
>10 ;
>11 * POSITIONS 16 TO 25-->
>12 *****

35C2: 50 40 30
35C5: 20 10 00
35C8: F0 E0 D0 >13 DFB $50,$40,$30,$20,$10,$00,$F0,$E0,$D0
>14 ;
>15 * POSITIONS 26 TO 35-->
>16 *****

35CB: C0 B0 A0
35CE: 90 71 61
35D1: 51 41 31
35D4: 21 >17 DFB $C0,$B0,$A0,$90,$71,$61,$51,$41,$31,$21
>18 ;
>19 * POSITIONS 36 TO 45--->
>20 *****

35D5: 11 01 F1
35D8: E1 D1 C1
35DB: B1 A1 91
35DE: 72 >21 DFB $11,$01,$F1,$E1,$D1,$C1,$B1,$A1,$91,$72
>22 ;
>23 * POSITIONS 46 TO 55--->
>24 *****

35DF: 62 52 42
35E2: 32 22 12
35E5: 02 F2 E2
35E8: D2 >25 DFB $62,$52,$42,$32,$22,$12,$02,$F2,$E2,$D2
>26 ;
>27 * POSITIONS 56 TO 65--->
>28 *****

35E9: C2 B2 A2
35EC: 92 73 63
35EF: 53 43 33
35F2: 23 >29 DFB $C2,$B2,$A2,$92,$73,$63,$53,$43,$33,$23
>30 ;
>31 * POSITIONS 66 TO 75-->
>32 *****

35F3: 13 03 F3
35F6: E3 D3 C3
35F9: B3 A3 93
35FC: 74 >33 DFB $13,$03,$F3,$E3,$D3,$C3,$B3,$A3,$93,$74
>34 ;
>35 * POSITIONS 76 TO 85-->
>36 *****

35FD: 64 54 44
3600: 34 24 14
3603: 04 F4 E4
3606: D4 >37 DFB $64,$54,$44,$34,$24,$14,$04,$F4,$E4,$D4
>38 ;
>39 * POSITIONS 86 TO 95-->
>40 *****

3607: C4 B4 A4

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```

360A: 94 75 65
360D: 55 45 35
3610: 25 >41 DFB $C4,$B4,$A4,$94,$75,$65,$55,$45,$35,$25
>42 ;
>43 * POSITIONS 96 TO 105-->
>44 *****

3611: 15 05 F5
3614: E5 D5 C5
3617: B5 A5 95
361A: 76 >45 DFB $15,$05,$F5,$E5,$D5,$C5,$B5,$A5,$95,$76
>46 ;
>47 * POSITIONS 106 TO 115-->
>48 *****

361B: 66 56 46
361E: 36 26 16
3621: 06 F6 E6
3624: D6 >49 DFB $66,$56,$46,$36,$26,$16,$06,$F6,$E6,$D6
>50 ;
>51 * POSITIONS 116 TO 125-->
>52 *****

3625: C6 B6 A6
3628: 96 77 67
362B: 57 47 37
362E: 27 >53 DFB $C6,$B6,$A6,$96,$77,$67,$57,$47,$37,$27
>54 ;
>55 * POSITIONS 126 TO 135-->
>56 *****

362F: 17 07 F7
3632: E7 D7 C7
3635: B7 A7 97
3638: 78 >57 DFB $17,$07,$F7,$E7,$D7,$C7,$B7,$A7,$97,$78
>58 ;
>59 * POSITIONS 136 TO 145-->
>60 *****

3639: 68 58 48
363C: 38 28 18
363F: 08 F8 E8
3642: D8 >61 DFB $68,$58,$48,$38,$28,$18,$08,$F8,$E8,$D8
>62 ;
>63 ;
>64 *****
>65 * DATA PTR OFFSETS FOR IMAGES *
>66 * CROSSING BAND BOUNDARIES *
>67 *****
>68 TOPOFF

3643: 00 01 02
3646: 03 04 05
3649: 06 07 08 >69 DFB 0,1,2,3,4,5,6,7,8
364C: 09 0A 0B
364F: 0C 0D 0E
3652: 0F >70 DFB 9,10,11,12,13,14,15
>71 BOTOFF

3653: 12 11 10
3656: 0F 0E 0D >72 DFB 18,17,16,15,14,13
3659: 0C 0B 0A
365C: 09 08 07
365F: 06 >73 DFB 12,11,10,9,8,7,6
3660: 05 04 03 >74 DFB 5,4,3
>75 ;
>76 *****
>77 * TABLE OF INDEXES TO POSTBL *
>78 * FOR ACTUAL POS VALUES FOR *
>79 * CHERRIES. (POS 17-145). *
>80 *****
>81 CHRPOS

3663: 00 08 10

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3665: 00 08 10
3666: 18 20 28
3669: 30 38 >82
366B: 40 48 50
366E: 58 60 68
3671: 70 78 >83
>84

DFB 0,8,16,24,32,40,48,56

DFB 64,72,80,88,96,104,112,120
;


```

54 *****
55 * SOUND & MUSIC TABLES *
56 *****
57 PUT MR.DO.SND TABLES
>1 */MR.DO.SOUND TBLS LASTED 7/08/83.
>2 ;
>3 *****
>4 * MUSIC TABLES FOR CH. A-> *
>5 *****
>6 ;FREQ/WAVE TABLE->
>7 ;B0-B4=FREQ.
>8 ;B7=WAVE
>9 ; 1=$0C
>10 ; 0=$04
>11 *****
>12 * CH. A FREQ/WAVE TBL--> *
>13 *****
>14 AMUSFW
>15 * SONG 1 = ORCHARD SONG-->
>16 AS1FW

3673: 13 00 0E
3676: 00 0F 00
3679: 11 00 13
367C: 00 13 >17 DFB $13,$00,$0E,$00,$0F,$00,$11,$00,$13,$00,$13
367E: 00 13 00
3681: 13 00 16
3684: 00 11 00
3687: 13 00 >18 DFB $00,$13,$00,$13,$00,$16,$00,$11,$00,$13,$00
3689: 16 00 17
368C: 00 1A 00
368F: 17 00 16
3692: 00 >19 DFB $16,$00,$17,$00,$1A,0,$17,0,$16,$00
3693: 13 00 11
3696: 00 0E >20 DFB $13,$00,$11,$00,$0E
3698: 00 0F 00
369B: 0F 00 11
369E: 00 0F 00
36A1: 13 00 >21 DFB $00,$0F,$00,$0F,$00,$11,$00,$0F,$00,$13,$00
36A3: FF >22 DFB $FF ;END OF SONG.
>23 * SONG 2 = END SONG-->
>24 *****
>25 AS2FW

36A4: 1A 00 11
36A7: 00 11 >26 DFB $1A,$0,$11,$0,$11
36A9: 00 14 00
36AC: 1A 00 >27 DFB $0,$14,$0,$1A,$0
36AE: 1A 00 11
36B1: 00 11 >28 DFB $1A,$0,$11,$0,$11
36B3: 00 14 00
36B6: 1A 00 >29 DFB $0,$14,$0,$1A,$0
36B8: 17 00 11
36BB: 00 11 >30 DFB $17,$0,$11,0,$11
36BD: 00 11 >31 DFB $00,$11
36BF: 00 1B 00
36C2: 1A >32 DFB $0,$1B,$0,$1A
36C3: FF >33 DFB $FF ;END OF SONG.
>34 * MR DO DEAD SONG-->
>35 *****
>36 AS3FW

36C4: 0F 11 13
36C7: 16 17 >37 DFB $0F,$11,$13,$16,$17
36C9: 1A 1D 00
36CC: 13 00 >38 DFB $1A,$1D,$00,$13,$00
36CE: 0E >39 DFB $0E
36CF: FF >40 DFB $FF ;END OF SONG.

```

```

36CF: FF
>40 DFB $FF ;END OF SONG.
>41 *****
>42 * CH A VOLUME/TIME TABLE--> *
>43 *****
>44 AMUSVT
>45 ;B0-B5=TIME.
>46 ;B6-B7=IDX TO VOLTBL.
>47 AS1VT

36D0: C7 03 C7
36D3: 03 C7 03
36D6: C7 03 C7
36D9: 03 C7 03 >48 DFB $C7,$03,$C7,$03,$C7,$03,$C7,$03,$C7,$03,$C7,$
03
36DC: C7 03 C7
36DF: 03 C7 03
36E2: C7 03 C7
36E5: 03 C7 03 >49 DFB $C7,$03,$C7,$03,$C7,$03,$C7,$03,$C7,$03,$C7,$
03
36E8: D4 14 C7
36EB: 03 C7 03
36EE: C7 03 C7
36F1: 03 CA 0A >50 DFB $D4,$14,$C7,$03,$C7,$03,$C7,$03,$C7,$03,$CA,$
0A
36F4: CA 0A C7
36F7: 03 C7 03
36FA: C7 03 C7
36FD: 03 D4 14 >51 DFB $CA,$0A,$C7,$03,$C7,$03,$C7,$03,$C7,$03,$D4,$
14
3700: FF >52 DFB $FF ;END OF SONG.
>53 ;
>54 * SONG2 = END SONG-->
>55 AS2VT

3701: CC 0C C9
3704: 03 C9 >56 DFB $CC,$0C,$C9,$03,$C9
3706: 03 CC 0C
3709: CC 0C >57 DFB $03,$CC,$0C,$CC,$0C
370B: CC 0C C9
370E: 03 C9 >58 DFB $CC,$0C,$C9,$03,$C9
3710: 03 CC 0C
3713: CC 0C >59 DFB $03,$CC,$0C,$CC,$0C
3715: CC 0C C9
3718: 03 C9 >60 DFB $CC,$0C,$C9,$03,$C9
371A: 03 DB 30
371D: CC 0C >61 DFB $03,$DB,$30,$CC,$0C
371F: CC >62 DFB $CC
3720: FF >63 DFB $FF ;END OF SONG.
>64 * MR DO DEAD SONG-->
>65 AS3VT

3721: C6 C6 C6
3724: C6 C6 >66 DFB $C6,$C6,$C6,$C6,$C6
3726: C6 C6 06
3729: C6 06 >67 DFB $C6,$C6,$06,$C6,$06
372B: C6 >68 DFB $C6
372C: FF >69 DFB $FF ;END OF SONG.
>70 *****
>71 * MUSIC TABLES FOR CH B--> *
>72 *****
>73 ;CH B FREQ/WAVE TBL-->
>74 *****
>75 * CH.B FREQ/WAVE TABLE--> *
>76 *****
>77 BMUSFW
>78 BS1FW

372D: 93 80 8F
3730: 80 9A 80
3733: 93 80 8F
3736: 80 81 >79

```


3738:	80	8E	80			
373B:	9A	80	93			
373E:	80	8F	80			
3741:	94	80		>80	DFB	\$80,\$8E,\$80,\$9A,\$80,\$93,\$80,\$8F,\$80,\$94,\$80
3743:	91	80	8E			
3746:	80	8B	80			
3749:	8C	80	8E			
374C:	80	8F		>81	DFB	\$91,\$80,\$8E,\$80,\$8B,\$80,\$8C,\$80,\$8E,\$80,\$8F
374E:	80	91	80			
3751:	94	80	91			
3754:	80	8C	80			
3757:	8E	80		>82	DFB	\$80,\$91,\$80,\$94,\$80,\$91,\$80,\$8C,\$80,\$8E,\$80
3759:	8F	80	91			
375C:	80			>83	DFB	\$8F,\$80,\$91,\$80
375D:	FF			>84	DFB	\$FF ;END OF SONG1.
				>85	BS2FW	
375E:	8D	80	8B			
3761:	80	8D		>86	DFB	\$8D,\$80,\$8B,\$80,\$8D
3763:	80	8B	80			
3766:	8D	80		>87	DFB	\$80,\$8B,\$80,\$8D,\$80
3768:	8B	80	8D			
376B:	80	8B		>88	DFB	\$8B,\$80,\$8D,\$80,\$8B
376D:	80	8F	80			
3770:	8B	80		>89	DFB	\$80,\$8F,\$80,\$8B,\$80
3772:	8B	80	97			
3775:	80	97		>90	DFB	\$8B,\$80,\$97,\$80,\$97
3777:	80	97	80			
377A:	97	80		>91	DFB	\$80,\$97,\$80,\$97,\$80
377C:	91			>92	DFB	\$91
377D:	FF			>93	DFB	\$FF ;END OF SONG.
				>94	* MR DO DEAD SONG-->	
				>95	BS3FW	
377E:	0F	11	13			
3781:	16	17		>96	DFB	\$0F,\$11,\$13,\$16,\$17
3783:	1A	1D	00			
3786:	13	00		>97	DFB	\$1A,\$1D,\$00,\$13,\$00
3788:	0E			>98	DFB	\$0E
3789:	FF			>99	DFB	\$FF ;END OF SONG.
				>100	*****	
				>101	* CH. B MUSIC VOL/TIME TBL *	
				>102	*****	
				>103	BMUSVT	
				>104	BS1VT	
378A:	07	03	0A			
378D:	0A	07	03			
3790:	0A	0A	0A			
3793:	0A	07	03	>105	DFB	\$07,\$03,\$0A,\$0A,\$07,\$03,\$0A,\$0A,\$0A,\$0A,\$07,\$
03						
3796:	0A	0A	07			
3799:	03	0A	0A			
379C:	0A	0A	07			
379F:	03	0A	0A	>106	DFB	\$0A,\$0A,\$07,\$03,\$0A,\$0A,\$0A,\$0A,\$07,\$03,\$0A,\$
0A						
37A2:	07	03	07			
37A5:	03	07	03			
37A8:	07	03	07			
37AB:	03	07	03	>107	DFB	\$07,\$03,\$07,\$03,\$07,\$03,\$07,\$03,\$07,\$03,\$07,\$
03						
37AE:	0A	0A	07			
37B1:	03	07	03			
37B4:	07	03	07			
37B7:	03			>108	DFB	\$0A,\$0A,\$07,\$03,\$07,\$03,\$07,\$03,\$07,\$03
37B8:	07	03		>109	DFB	\$07,\$03
37BA:	FF			>110	DFB	\$FF ;END OF SONG1.
				>111	BS2VT	
37BB:	8C	0C	8C			

```

37BB: 8C 0C 8C >112 DFB $8C,$0C,$8C,$0C,$8C
37C0: 0C 8C 0C >113 DFB $0C,$8C,$0C,$8C,$0C
37C3: 8C 0C >114 DFB $8C,$0C,$8C,$0C,$8C
37C5: 8C 0C 8C >115 DFB $0C,$8C,$0C,$8C,$0C
37C8: 0C 8C >116 DFB $8C,$0C,$89,$03,$89
37CA: 0C 8C 0C >117 DFB $03,$8C,$0C,$8C,$0C
37CD: 8C 0C >118 DFB $8C
37CF: 8C 0C 89 >119 DFB $FF ;END OF SONG.
37D2: 03 89 >120 * MR DO DEAD SONG->
37D4: 03 8C 0C >121 BS3VT
37DB: 06 06 06 >122 DFB $06,$06,$06,$06,$06
37DE: 06 06 >123 DFB $06,$06,$06,$06,$06
37E0: 06 06 06 >124 DFB $06
37E3: 06 >125 DFB $FF ;END OF SONG.
37E5: 06 >126 VOLTBL
37E6: FF >127 DFB 0,10,11,12
37E7: 00 0A 0B >128 ;
37EA: 0C >129 *****
>130 * DATA STRUCTURE FOR SOUNDS--> *
>131 * BYTE 1: B0-B3= VOLUME *
>132 * B4-B7= WAVEFORM *
>133 * BYTE 2: B0-B4= FREQ DIVISOR *
>134 * B5-B7= 3 BIT DURATION*
>135 * WHEN VOLUME=0,SOUND DONE *
>136 *****
>137 SNDBTL
>138 DEADSND
37EB: 88 F5 87 >139 DFB $88,$F5,$87,$FA
37EE: FA >140 DFB $88,$F1,0,0
37EF: 88 F1 00 >141 BEEP
37F2: 00 >142 DFB $48,$7B
>143 DFB $44,$7B
>144 DFB 0,0
>145 BOOP
37F3: 48 7B >146 DFB $48,$73
37F5: 44 7B >147 DFB $44,$73
37F7: 00 00 >148 DFB 0,0
>149 BELLS
37F9: 48 73 >150 DFB $49,$63
37FB: 44 73 >151 DFB $49,$EA
37FD: 00 00 >152 DFB $49,$E7
>153 DFB 0,0
>154 CHER1
3807: 4B 7D >155 DFB $4B,$7D
3809: 4B 6E >156 DFB $4B,$6E
380B: 4B 7D >157 DFB $4B,$7D
380D: 4B 6E >158 DFB $4B,$6E
380F: 4B 7D >159 DFB $4B,$7D
3811: 4B 7D >160 DFB $4B,$7D
3813: 00 >161 DFB 0
>162 CHER2
3814: 4B 7A >163 DFB $4B,$7A
3816: 4B 6C >164 DFB $4B,$6C
3818: 4B 7A >165 DFB $4B,$7A
381A: 4B 6C >166 DFB $4B,$6C
381C: 4B 7A >167 DFB $4B,$7A

```


381E: 4B 6C	>168	DFB	\$4B, \$6C
3820: 00	>169	DFB	0
	>170	CHER3	
3821: 4B 77	>171	DFB	\$4B, \$77
3823: 4B 6B	>172	DFB	\$4B, \$6B
3825: 4B 77	>173	DFB	\$4B, \$77
3827: 4B 6B	>174	DFB	\$4B, \$6B
3829: 4B 77	>175	DFB	\$4B, \$77
382B: 4B 6B	>176	DFB	\$4B, \$6B
382D: 00	>177	DFB	0
	>178	CHER4	
382E: 4B 75	>179	DFB	\$4B, \$75
3830: 4B 6A	>180	DFB	\$4B, \$6A
3832: 4B 75	>181	DFB	\$4B, \$75
3834: 4B 6A	>182	DFB	\$4B, \$6A
3836: 4B 75	>183	DFB	\$4B, \$75
3838: 4B 6A	>184	DFB	\$4B, \$6A
383A: 00	>185	DFB	0
	>186	CHER5	
383B: 4B 73	>187	DFB	\$4B, \$73
383D: 4B 69	>188	DFB	\$4B, \$69
383F: 4B 73	>189	DFB	\$4B, \$73
3841: 4B 69	>190	DFB	\$4B, \$69
3843: 4B 73	>191	DFB	\$4B, \$73
3845: 4B 69	>192	DFB	\$4B, \$69
3847: 00	>193	DFB	0
	>194	CHER6	
3848: 4B 71	>195	DFB	\$4B, \$71
384A: 4B 68	>196	DFB	\$4B, \$68
384C: 4B 71	>197	DFB	\$4B, \$71
384E: 4B 68	>198	DFB	\$4B, \$68
3850: 4B 71	>199	DFB	\$4B, \$71
3852: 4B 68	>200	DFB	\$4B, \$68
3854: 00	>201	DFB	0

```

59      OBJ  $8894
60      ORG  $3890
61      *****
62      * DIGIT DATA FILE *
63      *****
64      PUT  MR.DO.DIGITS
>1      */MR.DO.DATA LASTED 5/15/83
>2      *.....DIGITS.....
>3      DATA1
>4      DIGITS
>5      *
>6      ZERO

```

```

3890: 00 1C 22
3893: 63 63 63
3896: 22 1C      >7      DFB  $00,$1C,$22,$63,$63,$63,$22,$1C
                        >8      ONE
3898: 00 7F 0C
389B: 0C 0C 1C
389E: 0C 04      >9      DFB  $00,$7F,$0C,$0C,$0C,$1C,$0C,$04
                        >10     TWO
38A0: 00 7F 60
38A3: 60 3E 03
38A6: 03 3E      >11     DFB  $00,$7F,$60,$60,$3E,$03,$03,$3E
                        >12     THREE
38AB: 00 7E 03
38AB: 03 3E 03
38AE: 03 7E      >13     DFB  $00,$7E,$03,$03,$3E,$03,$03,$7E
                        >14     FOUR
38B0: 00 06 7F
38B3: 26 16 0E
38B6: 06 02      >15     DFB  $00,$06,$7F,$26,$16,$0E,$06,$02
                        >16     FIVE
38B8: 00 7E 03
38BB: 03 3E 60
38BE: 60 7E      >17     DFB  $00,$7E,$03,$03,$3E,$60,$60,$7E
                        >18     SIX
38C0: 00 3E 63
38C3: 63 7E 60
38C6: 60 3E      >19     DFB  $00,$3E,$63,$63,$7E,$60,$60,$3E
                        >20     SEVEN
38C8: 00 30 18
38CB: 0C 06 03
38CE: 61 7F      >21     DFB  $00,$30,$18,$0C,$06,$03,$61,$7F
                        >22     EIGHT
38D0: 00 3E 63
38D3: 63 3E 63
38D6: 63 3E      >23     DFB  $00,$3E,$63,$63,$3E,$63,$63,$3E
                        >24     NINE
38D8: 00 3E 03
38DB: 03 3F 63
38DE: 63 3E      >25     DFB  $00,$3E,$03,$03,$3F,$63,$63,$3E
38E0: 00 00 00
38E3: 00 00 00
38E6: 00 00      >26     BLANK  DFB  0,0,0,0,0,0,0,0
                        >27     *
                        >28     SCORTB
38E8: 90 9B A0
38EB: AB B0      >29     DFB  <ZERO,<ONE,<TWO,<THREE,<FOUR
38ED: B8 C0 C8
38F0: D0 DB      >30     DFB  <FIVE,<SIX,<SEVEN,<EIGHT,<NINE

```

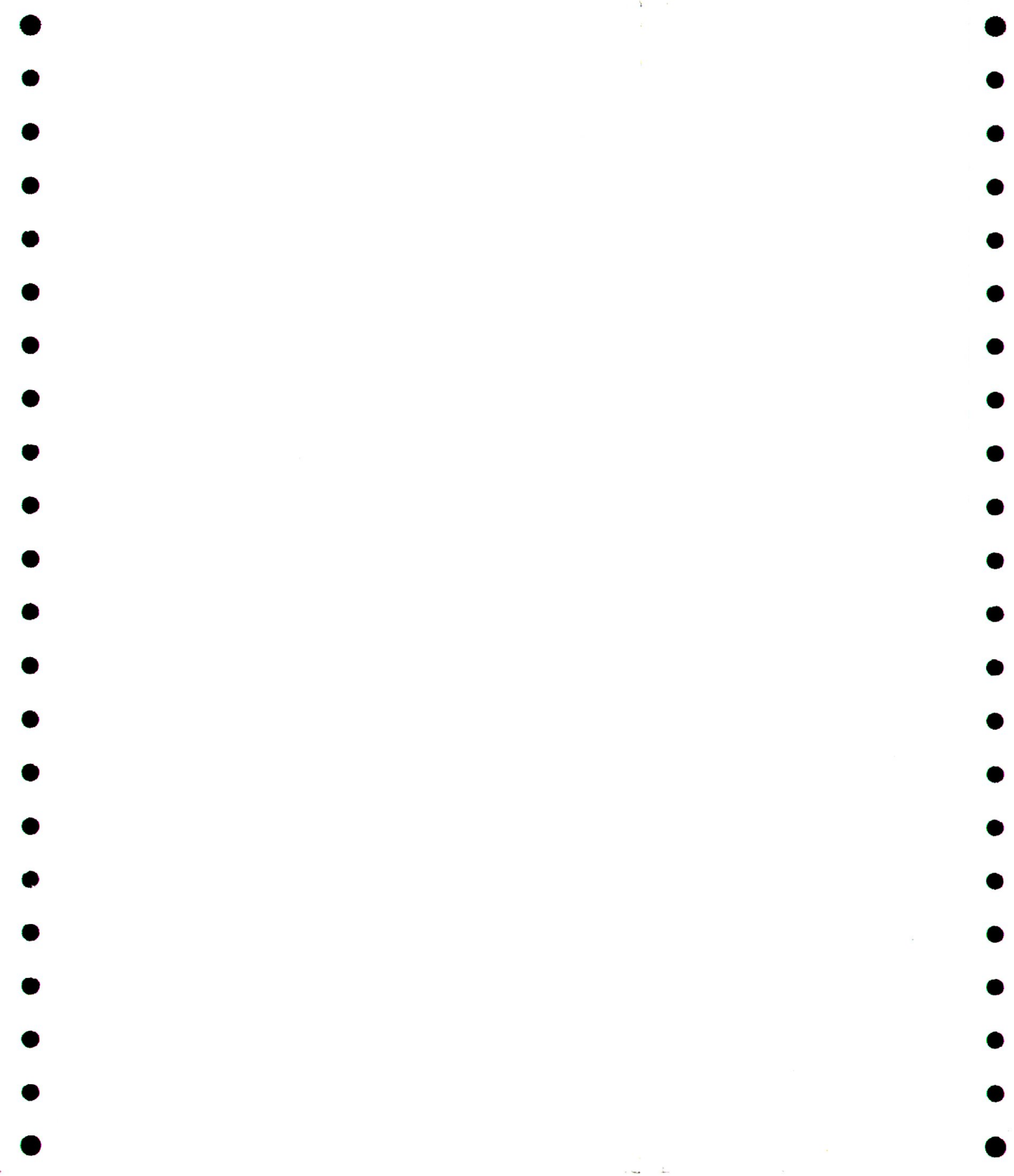


```

66          OBJ  $8904
67          ORG  $3900
68          *****
69          * SPRITE B IMAGE DATA FILE      *
70          *****
71          PUT  MR.DO.SPRITEB IMAGES
>1          */MR.DO.SB IMAGES LASTED 7/06/83.
>2          ;
>3          ;
>4          * SPRITE B IMAGES-->
>5          *****
>6          SBIMG
>7          CHERRY
3900: 00      >8          DFB  0
3901: 00      >9          DFB  0
3902: 00     >10         DFB  0
3903: 00     >11         DFB  0
3904: 42     >12         DFB  $42
3905: E7     >13         DFB  $E7
3906: EF     >14         DFB  $EF
3907: E7     >15         DFB  $E7
3908: 42     >16         DFB  $42
3909: 24     >17         DFB  $24
390A: 14     >18         DFB  $14
390B: 0C     >19         DFB  $0C
390C: 04     >20         DFB  $04
390D: 00     >21         DFB  0
390E: 00     >22         DFB  0
390F: 00     >23         DFB  0
3910: 00     >24         DFB  0
3911: 00     >25         DFB  0
>26          ;
>27          * MR DO, LEFT FOOT DOWN, FACING LEFT, EYES OPEN.
3912: 00 00 00
3915: 00 00 00
3918: 00 00    >28         DFB  0,0,0,0,0,0,0,0
391A: 00 00 00
391D: 00 00 00
3920: 00 00    >29         DFB  0,0,0,0,0,0,0,0
>30          MRDOLL
3922: 00      >31         DFB  0
3923: C0 44 4C
3926: 30 38    >32         DFB  $C0,$44,$4C,$30,$38
3928: 78 F8 F8
392B: 30 70    >33         DFB  $78,$F8,$F8,$30,$70
392D: 58 5D 7E
3930: 38 10    >34         DFB  $58,$5D,$7E,$38,$10
3932: 00      >35         DFB  0
3933: 00      >36         DFB  0
>37          ;
>38          NULLB
3934: 00 00 00
3937: 00 00 00
393A: 00 00    >39         DFB  0,0,0,0,0,0,0,0
393C: 00 00 00
393F: 00 00 00
3942: 00 00    >40         DFB  0,0,0,0,0,0,0,0
>41          * MR DO RIGHT FOOT DOWN, FACING LEFT, EYES CLOSED.
>42          MRDORL
3944: 00      >43         DFB  0
3945: 68 38 30
3948: 30 38    >44         DFB  $68,$38,$30,$30,$38
394A: 78 F8 F8
394D: 30 70    >45         DFB  $78,$F8,$F8,$30,$70
394F: 58 5C 7E

```

3952:	39	10	>46	DFB	\$58,\$5C,\$7E,\$39,\$10
3954:	00		>47	DFB	0
3955:	00		>48	DFB	0
			>49		;
3956:	00	00	00		
3959:	00	00	00		
395C:	00	00	>50	DFB	0,0,0,0,0,0,0,0,0
395E:	00	00	00		
3961:	00	00	00		
3964:	00	00	>51	DFB	0,0,0,0,0,0,0,0,0
			>52	* MR DO RIGHT FOOT DOWN, FACING RIGHT, EYES CLOSED.	
			>53	*****	
			>54	MRDORR	
3966:	00		>55	DFB	0
3967:	03	22	32		
396A:	0C	1C	>56	DFB	\$03,\$22,\$32,\$0C,\$1C
396C:	1E	1F	1F		
396F:	0C	0E	>57	DFB	\$1E,\$1F,\$1F,\$0C,\$0E,
3971:	1A	BA	7E		
3974:	1C	08	>58	DFB	\$1A,\$BA,\$7E,\$1C,\$08
3976:	00		>59	DFB	0
3977:	00		>60	DFB	0
			>61		;
3978:	00	00	00		
397B:	00	00	00		
397E:	00	00	>62	DFB	0,0,0,0,0,0,0,0,0
3980:	00	00	00		
3983:	00	00	00		
3986:	00	00	>63	DFB	0,0,0,0,0,0,0,0,0
			>64	* MR DO LEFT FOOT DOWN, FACING RIGHT, EYES OPEN.	
			>65	MRDOLR	
			>66	DFB	0
3988:	00				
3989:	16	1C	0C		
398C:	0C	1C	>67	DFB	\$16,\$1C,\$0C,\$0C,\$1C
398E:	1E	1F	1F		
3991:	0C	0E	>68	DFB	\$1E,\$1F,\$1F,\$0C,\$0E
3993:	1A	3A	7E		
3996:	9C	08	>69	DFB	\$1A,\$3A,\$7E,\$9C,\$08
3998:	00		>70	DFB	0
3999:	00		>71	DFB	0
			>72		;
399A:	00	00	00		
399D:	00	00	00		
39A0:	00	00	>73	DFB	0,0,0,0,0,0,0,0,0
39A2:	00	00	00		
39A5:	00	00	00		
39A8:	00	00	>74	DFB	0,0,0,0,0,0,0,0,0



```

73 *****
74 * ADDRESS PTRS FOR WORDS *
75 *****
76 PUT MR.DO.ADDRESS PTRS
>1 */ MR.DO ADDR PTRS LASTED 7/28/83.
>2 *
>3 * LOW BYTE ADDRESSES FOR WORDS-->
>4 *****
>5 * WORD "COLECO"
>6 *****
>7 WORDS

39AA: 70 80 78
39AD: 30 70 80 >8 COLECO DFB <LC,<LO,<LL,<LE,<LC,<LO
>9 * WORD "PRESENTS"
>10 *****

39B0: 88 90 98
39B3: A0 AB B0 >11 PRESNT DFB <LPR,<LE2,<LSE,<LN,<LTS,<LS
>12 ;
>13 * WORD "MR DO!"
>14 *****
>15 MRDOT1
>16 DFB <NULL

39B6: B8
39B7: 00 18 20
39BA: 28 B8 B8 >17 MRDOTB DFB <LM,<SMLR,<LD,<LOH,<NULL,<NULL
>18 * NULL WORD-->
>19 *****
>20 NULLTB

39BD: B8 B8 B8
39C0: B8 B8 B8 >21 DFB <NULL,<NULL,<NULL,<NULL,<NULL,<NULL
>22 * WORD "GAME"-->
>23 *****
>24 GAMETB

39C3: B8 C2 60
39C6: 00 30 B8 >25 DFB <NULL,<LG,<LA,<LM,<LE,<NULL
>26 * WORD "OVER"-->
>27 *****
>28 OVERTB

39C9: B8 80 CB
39CC: 30 08 B8 >29 DFB <NULL,<LO,<LV,<LE,<LR,<NULL
>30 * WORD "EXTRA"
>31 *****

39CF: B8 30 40
39D2: 50 08 60 >32 LETTBL DFB <NULL,<LE,<LX,<LT,<LR,<LA
>33 * WORD EXTRA IN REVERSE VIDEO
>34 *****
>35 REVTBL

39D5: B8 38 48 >36 DFB <NULL,<REVE,<REVE
39D8: 58 10 68 >37 DFB <REVT,<REVR,<REVA
>38 ;
>39 ;
>40 *****
>41 * LOAD PTRS FOR 6 SPRITES--> *
>42 * X = HI PTR FOR WHERE DATA IS *
>43 * A = LO ADDR OF TBL WHERE LO *
>44 * BYTE PTRS ARE *
>45 *****
>46 SPRIT6

39DB: 85 EF >47 STA TEMP1
39DD: A9 39 >48 LDA #>WORDS
39DF: 85 F0 >49 STA TEMP2
39E1: 86 F1 >50 STX TEMP3
39E3: A0 05 >51 LDY #5
39E5: A2 0B >52 LDX #11
>53 SPR6
39E7: A5 F1 >54 LDA TEMP3

```


39E7:	A5 F1	>54	LDA	TEMP3
39E9:	95 F2	>55	STA	PD100K, X
39EB:	CA	>56	DEX	
39EC:	B1 EF	>57	LDA	(TEMP1), Y
39EE:	95 F2	>58	STA	PD100K, X
39F0:	CA	>59	DEX	
39F1:	88	>60	DEY	
39F2:	10 F3	>61	BPL	SPR6
39F4:	60	>62	RTS	
		>63		
		>64		

```

78          OBJ  $BA04
79          ORG  $3A00
80          *****
81          * SPRITE A IMAGES (PAGE 1) *
82          *****
83          PUT  MR.DD.SA  IMG1
>1          */MR.DD.SA IMG1 LASTED 8/3/83.
>2
>3          *-----
>4
>5          * SPRITE A IMAGE DATA-->
>6          *****
>7          * SA IMAGES ARE ON 2 PAGES, *
>8          * IMG1 & IMG2. DURING ORCHARD *
>9          * PAINTING, EACH BANDS HI DATA *
>10         * PTR (PAGE) IS GOVERENED BY *
>11         * ITS RESPECTIVE BIT IN PTR. *
>12         * IF BIT = 1 THEN IMG IS ON *
>13         * IMG2 PAGE, ELSE ITS ON IMG1 *
>14         * PAGE. *
>15         *****
>16         IMG1
>17         * APPLE SITTING STEADY-->
>18         *****
>19         APPLE0
>20         APPLE1
3A00: 00    >21         DFB  0
3A01: 00    >22         DFB  0
3A02: 24    >23         DFB  %00100100
3A03: 7E    >24         DFB  %01111110
3A04: 7E    >25         DFB  %01111110
3A05: FF    >26         DFB  %11111111
3A06: FF    >27         DFB  %11111111
3A07: FF    >28         DFB  %11111111
3A08: 67    >29         DFB  %01100111
3A09: 2A    >30         DFB  %00101010
3A0A: 08    >31         DFB  %00001000
3A0B: 04    >32         DFB  %00000100
3A0C: 00    >33         DFB  0
3A0D: 00    >34         DFB  0
>35
>36         * APPLE ROCKING LEFT-->
>37         *****
>38         APPLE2
3A0E: 00 00 >39         DFB  0,0
3A10: 10 36 7F
3A13: FF FF >40         DFB  $10,$36,$7F,$FF,$FF
3A15: FF 67 2A
3A18: 08 10 >41         DFB  $FF,$67,$2A,$08,$10
3A1A: 00 00 >42         DFB  0,0
>43         * APPLE ROCKING RIGHT-->
>44         *****
>45         APPLE3
3A1C: 00 00 >46         DFB  0,0
3A1E: 08 6C FE
3A21: FF FF >47         DFB  $08,$6C,$FE,$FF,$FF
3A23: FF E6 54
3A26: 10 08 >48         DFB  $FF,$E6,$54,$10,$08
3A28: 00 00 >49         DFB  0,0
>50         * APPLE BREAKING STAGE 1->>
>51         *****
>52         APPLE4
3A2A: 00 00 >53         DFB  0,0
3A2C: 18 3C E7
3A2F: C3 C3 >54         DFB  $18,$3C,$E7,$C3,$C3

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3A31:	81 81 00		
3A34:	00 00	>55	DFB \$81,\$81,\$00,\$00,\$00
3A36:	00 00	>56	DFB 0,0
		>57	;
		>58	* APPLE BREAKING STAGE 2->>
		>59	*****
		>60	APPLE5
3A38:	00 00	>61	DFB 0,0
		>62	APEND
3A3A:	3C E7 C3		
3A3D:	81 00	>63	DFB \$3C,\$E7,\$C3,\$81,\$00
		>64	;
3A3F:	00 00 00		
3A42:	00 00 00		
3A45:	00 00	>65	DFB 0,0,0,0,0,0,0,0
3A47:	00 00 00		
3A4A:	00 00 00		
3A4D:	00 00	>66	DFB 0,0,0,0,0,0,0,0
		>67	;
		>68	* DIG FACING LEFT,RIGHT FOOT DOWN-->
		>69	*****
		>70	DIGLR
3A4F:	00	>71	DFB 0
3A50:	0C 08 38		
3A53:	28 7E	>72	DFB \$0C,\$08,\$38,\$28,\$7E
3A55:	C2 47 28		
3A58:	28 C8	>73	DFB \$C2,\$47,\$28,\$28,\$C8
3A5A:	86 92 92		
3A5D:	84 78	>74	DFB \$86,\$92,\$92,\$84,\$78
3A5F:	00	>75	DFB 0
3A60:	00 00 00		
3A63:	00 00 00		
3A66:	00 00	>76	DFB 0,0,0,0,0,0,0,0
3A68:	00 00 00		
3A6B:	00 00 00		
3A6E:	00 00	>77	DFB 0,0,0,0,0,0,0,0
		>78	
		>79	* DIGGER FACING LEFT LEFT FOOT DOWN-->
		>80	*****
		>81	DIGLL
3A70:	00	>82	DFB 0
3A71:	30 20 2C		
3A74:	28 7C	>83	DFB \$30,\$20,\$2C,\$28,\$7C
3A76:	C4 44 22		
3A79:	2F C8	>84	DFB \$C4,\$44,\$22,\$2F,\$C8
3A7B:	86 82 92		
3A7E:	84 78	>85	DFB \$86,\$82,\$92,\$84,\$78
3A80:	00	>86	DFB 0
3A81:	00 00 00		
3A84:	00 00 00		
3A87:	00 00	>87	DFB 0,0,0,0,0,0,0,0
3A89:	00 00 00		
3A8C:	00 00 00		
3A8F:	00 00	>88	DFB 0,0,0,0,0,0,0,0
3A91:	00	>89	DFB 0
		>90	;
		>91	* DIGGING FACING RIGHT-->
		>92	DUGLL
3A92:	00	>93	DFB 0
3A93:	2A 3E 7F		
3A96:	EA CA	>94	DFB \$2A,\$3E,\$7F,\$EA,\$CA
3A98:	80 80 CA		
3A9B:	EB FF	>95	DFB \$80,\$80,\$CA,\$EB,\$FF
3A9D:	7E 66 55		
3AA0:	55 77	>96	DFB \$7E,\$66,\$55,\$55,\$77
3AA2:	00	>97	DFB 0

3AA3:	00 00 00			DFB	0,0,0,0,0
3AA6:	00 00	>98			
3AAB:	00 00 00			DFB	0,0,0,0,0
3AAB:	00 00	>99			
3AAD:	00 00 00				
3AB0:	00 00	>100		DFB	0,0,0,0,0
3AB2:	00 00	>101		DFB	0,0
		>102			
		>103	DUGLR		;TEMP DIGGING IMG->
		>104		DFB	0
3AB4:	00				
3AB5:	54 54 3E				
3AB8:	7F CA	>105		DFB	\$54,\$54,\$3E,\$7F,\$CA
3ABA:	80 CA EB				
3ABD:	FF 7E	>106		DFB	\$80,\$CA,\$EB,\$FF,\$7E
3ABF:	4C 55 55				
3AC2:	55 77	>107		DFB	\$4C,\$55,\$55,\$55,\$77
3AC4:	00	>108		DFB	0
3AC5:	00 00 00				
3AC8:	00 00 00				
3ACB:	00 00	>109		DFB	0,0,0,0,0,0,0,0,0
3ACD:	00 00 00				
3AD0:	00 00 00				
3AD3:	00 00	>110		DFB	0,0,0,0,0,0,0,0,0
3AD5:	00 00 00				
3ADB:	00 00	>111		DFB	0,0,0,0,0
3ADA:	00 00 00				
3ADD:	00 00	>112		DFB	0,0,0,0,0
3ADF:	00 00 00				
3AE2:	00 00	>113		DFB	0,0,0,0,0
		>114	NULL1		
3AE4:	00 00 00				
3AE7:	00 00	>115		DFB	0,0,0,0,0
3AE9:	00 00 00				
3AEC:	00 00	>116		DFB	0,0,0,0,0
3AEE:	00 00 00				
3AF1:	00 00	>117		DFB	0,0,0,0,0
3AF3:	00 00 00	>118		DFB	0,0,0
		>119			


```

85          OBJ $8B04
86          ORG $3B00
87          *****
88          * SPRITE A IMAGES (PAGE 2) *
89          *****
90          PUT MR.DO.SA IMG2
>1          */MR.DO.SA IMG2 LASTED 8/3/83.
>2          ;
>3          *-----
>4          * ALPHA MONSTER IMAGES--->
>5          *****
>6          IMG2
>7          ;ORG $3B40->
>8          * DIGGING FACING LEFT-->
>9          DUGRR
3B00: 00 00 >10          DFB 0,0
3B02: C2 66 FC >11          DFB $C2,$66,$FC,$FB,$AC
3B05: F8 AC >12          DFB $A6,$02,$0A,$0E,$AC
3B07: A6 02 0A >13          DFB $AC,$F8,$78,$30,$00
3B0A: 0E AC >14          DFB 0,0,0,0,0
3B0C: AC F8 78 >15          DFB 0,0,0,0,0
3B0F: 30 00 >16          DFB 0,0,0,0,0
3B11: 00 00 00 >17          DFB 0,0,0,0,0
3B14: 00 00 00 >18          DFB 0,0,0,0,0
3B16: 00 00 00 >19          DFB $38,$18,$18,$38,$7C
3B19: 00 00 >20          DFB $E6,$A6,$06,$A6,$FC
3B1B: 00 00 00 >21          DFB $7C,$38
3B1E: 00 00 >22          DFB 0,0,0,0,0
>23          DUGRL
3B20: 00 00 00 >24          DFB 0,0,0,0,0
3B23: 00 >25          DFB 0,0,0,0,0
3B24: 38 18 18 >26          DFB $38,$18,$18,$38,$7C
3B27: 38 7C >27          DFB $E6,$A6,$06,$A6,$FC
3B29: E6 A6 06 >28          DFB $7C,$38
3B2C: A6 FC >29          DFB 0,0,0,0,0
3B2E: 7C 38 >30          DFB 0,0,0,0,0
3B30: 00 00 00 >31          DFB 0,0,0,0,0
3B33: 00 00 >32          DFB 0,0,0,0,0
3B35: 00 00 00 >33          DFB 0,0,0,0,0
3B38: 00 00 >34          DFB 0,0,0,0,0
3B3A: 00 00 00 >35          DFB 0,0,0,0,0
3B3D: 00 00 >36          DFB 0,0
3B3F: 00 00 >37          DFB 0,0,0,0,0
3B41: 00 00 00 >38          DFB 0,0,0,0,0
3B44: 00 >39          DFB 0,0,0,0,0
3B45: 00 00 00 >40          DFB 0,0,0,0,0
3B48: 00 >41          DFB 0,0,0,0,0
>42          LETRE
3B49: 00 >43          DFB 0 ;LETTER E
3B4A: C3 66 7E >44          DFB $C3,$66,$7E,$42,$81
3B4D: 42 81 >45          DFB $BD,$B1,$B1,$BD,$B1
3B4F: BD B1 B1 >46          DFB $B1,$BD,$81,$42,$3C
3B52: BD B1 >47          DFB 0,0,0,0,0
3B54: B1 BD 81 >48          DFB 0,0,0,0,0
3B57: 42 3C >49          DFB 0,0,0,0,0
3B59: 00 00 00 >50          DFB 0,0,0,0,0
3B5C: 00 00 >51          DFB 0,0,0,0,0
3B5E: 00 00 00 >52          DFB 0,0,0,0,0
3B61: 00 00 >53          DFB 0,0,0,0,0
3B63: 00 00 00 >54          DFB 0,0
3B66: 00 00 >55          DFB 0,0,0,0,0
3B68: 00 00 >56          DFB 0,0
>57          LETRX
3B6A: 00 >58          DFB 0 ;LETTER X
3B6B: C3 66 7E

```

3B6E: 42 81 >39
 3B70: A5 A5 A5
 3B73: 99 99 >40
 3B75: A5 A5 81
 3B78: 42 3C >41
 3B7A: 00 00 00
 3B7D: 00 00 >42
 3B7F: 00 00 00
 3B82: 00 00 >43
 3B84: 00 00 00
 3B87: 00 00 >44
 3B89: 00 00 >45
 >46
 3B8B: 00 >47
 3B8C: C3 66 7E
 3B8F: 42 81 >48
 3B91: 99 99 99
 3B94: 99 99 >49
 3B96: 99 BD 81
 3B99: 42 3C >50
 3B9B: 00 00 00
 3B9E: 00 00 >51
 3BA0: 00 00 00
 3BA3: 00 00 >52
 3BA5: 00 00 00
 3BA8: 00 00 >53
 3BAA: 00 00 >54
 >55
 3BAC: 00 >56
 3BAD: C3 66 7E
 3BB0: 42 81 >57
 3BB2: B5 B5 B9
 3BB5: B5 B5 >58
 3BB7: B5 B9 81
 3BBA: 42 3C >59
 3BBC: 00 00 00
 3BBF: 00 00 >60
 3BC1: 00 00 00
 3BC4: 00 00 >61
 3BC6: 00 00 00
 3BC9: 00 00 >62
 3BCB: 00 00 >63
 >64
 3BCD: 00 >65
 3BCE: C3 66 7E
 3BD1: 42 81 >66
 3BD3: A5 A5 BD
 3BD6: A5 A5 >67
 3BD8: A5 99 81
 3BDB: 42 3C >68
 3BDD: 00 00 00
 3BE0: 00 00 >69
 3BE2: 00 00 00
 3BE5: 00 00 >70
 3BE7: 00 00 00
 3BEA: 00 00 >71
 >72
 3BEC: 00 00 00
 3BEF: 00 00 >73

LETRT

LETRR

LETRA

DFB \$C3,\$66,\$7E,\$42,\$81
 DFB \$A5,\$A5,\$A5,\$99,\$99
 DFB \$A5,\$A5,\$81,\$42,\$3C
 DFB 0,0,0,0,0
 DFB 0,0,0,0,0
 DFB 0,0,0,0,0
 DFB 0,0
 DFB 0 ;LETTER T
 DFB \$C3,\$66,\$7E,\$42,\$81
 DFB \$99,\$99,\$99,\$99,\$99
 DFB \$99,\$BD,\$81,\$42,\$3C
 DFB 0,0,0,0,0
 DFB 0,0,0,0,0
 DFB 0,0,0,0,0
 DFB 0,0
 DFB 0 ;LETTER R.
 DFB \$C3,\$66,\$7E,\$42,\$81
 DFB \$B5,\$B5,\$B9,\$B5,\$B5
 DFB \$B5,\$B9,\$81,\$42,\$3C
 DFB 0,0,0,0,0
 DFB 0,0,0,0,0
 DFB 0,0,0,0,0
 DFB 0,0
 DFB 0 ;LETTER A
 DFB \$C3,\$66,\$7E,\$42,\$81
 DFB \$A5,\$A5,\$BD,\$A5,\$A5
 DFB \$A5,\$99,\$81,\$42,\$3C
 DFB 0,0,0,0,0
 DFB 0,0,0,0,0
 DFB 0,0,0,0,0
 ;
 DFB 0,0,0,0,0


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92          OBJ  $8C04
93          ORG  $3C00
94          *****
95          * LETTER IMAGE TABLES *
96          *****
97          PUT  MR.DO.LETTER TABLES.
>1          */MR.DO.LETTER TBLs LASTED 7/29/83
>2          ;
>3          DATA2
>4          LETTRS

3C00: 00 41 41
3C03: 41 49 55
3C06: 63 41      >5          LM          DFB  0,$41,$41,$41,$49,$55,$63,$41
>6          * LETTER "R"

3C08: 00 43 46
3C0B: 4C 7E 41
3C0E: 41 7E      >7          LR          DFB  0,$43,$46,$4C,$7E,$41,$41,$7E
>8          * REVERSE 'R'
>9          REVR

3C10: 00 BC B9  >10         DFB  0,$FF-$43,$FF-$46
3C13: B3 81      >11         DFB  $FF-$4C,$FF-$7E
3C15: BE BE      >12         DFB  $FF-$41,$FF-$41
3C17: 81          >13         DFB  $FF-$7E
>14          * SMALL "R"
>15          SMLR

3C18: 00 40 40
3C1B: 40 48 78
3C1E: 40 00      >16         DFB  0,$40,$40,$40,$48,$78,$40,0
>17          * LETTER "D"

3C20: 00 78 44
3C23: 44 44 44
3C26: 44 78      >18         LD          DFB  0,$78,$44,$44,$44,$44,$44,$78
>19          * LETTERS "O!"
>20          LOH

3C28: 00 62 90
3C2B: 92 92 93
3C2E: 63 03      >21         DFB  0,$62,$90,$92,$92,$93,$63,$03
>22          * LETTER "E"

3C30: 00 7E 40
3C33: 40 78 40
3C36: 40 7E      >23         LE          DFB  0,$7E,$40,$40,$78,$40,$40,$7E
>24          * REVERSE 'E'
>25          REVE

3C38: 00 81 BF  >26         DFB  0,$FF-$7E,$FF-$40
3C3B: BF 87      >27         DFB  $FF-$40,$FF-$78
3C3D: BF BF      >28         DFB  $FF-$40,$FF-$40
3C3F: 81          >29         DFB  $FF-$7E
>30          * LETTER "X"

3C40: 00 41 22
3C43: 14 08 14
3C46: 22 41      >31         LX          DFB  0,$41,$22,$14,$08,$14,$22,$41
>32          * REVERSE 'X'
>33          REVX

3C48: 00 BE DD  >34         DFB  0,$FF-$41,$FF-$22
3C4B: EB F7      >35         DFB  $FF-$14,$FF-$08
3C4D: EB DD      >36         DFB  $FF-$14,$FF-$22
3C4F: BE          >37         DFB  $FF-$41
>38          * LETTER "T"

3C50: 00 08 08
3C53: 08 08 08
3C56: 08 7F      >39         LT          DFB  0,$08,$08,$08,$08,$08,$08,$7F
>40          * REVERSE 'T'
>41          REVT

3C58: 00 F7      >42         DFB  0,$FF-$08
3C5A: F7 F7      >43         DFB  $FF-$08,$FF-$08

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3C5C: F7 F7	>44	DFB	\$FF-\$08, \$FF-\$08
3C5E: 80 FF	>45	DFB	\$FF-\$7F, \$FF
	>46	* LETTER "A"	
3C60: 00 44 44			
3C63: 44 7C 44			
3C66: 28 10	>47	LA	DFB 0, \$44, \$44, \$44, \$7C, \$44, \$28, \$10
	>48	* REVERSE 'A'	
	>49	REVA	
3C68: 00 BB BB	>50	DFB	0, \$FF-\$44, \$FF-\$44
3C6B: BB 83	>51	DFB	\$FF-\$44, \$FF-\$7C
3C6D: BB D7	>52	DFB	\$FF-\$44, \$FF-\$28
3C6F: EF	>53	DFB	\$FF-\$10
	>54		
	>55	* LETTER "C"	
3C70: 00 7F 40			
3C73: 40 40 40			
3C76: 40 7F	>56	LC	DFB 0, \$7F, \$40, \$40, \$40, \$40, \$40, \$7F
	>57	* LETTER "L"	
3C78: 00 7F 40			
3C7B: 40 40 40			
3C7E: 40 40	>58	LL	DFB 0, \$7F, \$40, \$40, \$40, \$40, \$40, \$40
	>59	* LETTER "O"	
3C80: 00 7F 41			
3C83: 41 41 41			
3C86: 41 7F	>60	LO	DFB 0, \$7F, \$41, \$41, \$41, \$41, \$41, \$7F
	>61	* LETTERS FOR THE WORD "PRESENTS"	
	>62	*****	
	>63	LPR	
3C88: 00 84 85			
3C8B: 86 F7 94			
3C8E: 94 F7	>64	DFB	0, \$84, \$85, \$86, \$F7, \$94, \$94, \$F7
	>65	LE2	
3C90: 00 B9 20			
3C93: 20 B9 A1			
3C96: A1 BD	>66	DFB	0, \$B9, \$20, \$20, \$B9, \$A1, \$A1, \$BD
	>67	LSE	
3C98: 00 EF 28			
3C9B: 28 EE 08			
3C9E: 08 EF	>68	DFB	0, \$EF, \$28, \$28, \$EE, \$08, \$08, \$EF
	>69	LN	
3CA0: 00 44 4C			
3CA3: 4C 54 54			
3CA6: 64 45	>70	DFB	0, \$44, \$4C, \$4C, \$54, \$54, \$64, \$45
	>71	LTS	
3CAB: 00 47 40			
3CAB: 40 47 44			
3CAE: 44 F7	>72	DFB	0, \$47, \$40, \$40, \$47, \$44, \$44, \$F7
	>73	LS	
3CB0: 00 C0 40			
3CB3: 40 C0 00			
3CB6: 00 C0	>74	DFB	0, \$C0, \$40, \$40, \$C0, \$00, \$00, \$C0
	>75		
3CB8: 00 00 00			
3CBB: 00 00 00			
3CBE: 00 00 00			
3CC1: 00	>76	NULL	DFB 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
	>77	* LETTER "G"	
	>78	*****	
	>79	LG	
3CC2: 00 7C 84			
3CC5: 8E 80 80			
3CC8: 84 7C 00	>80	DFB	\$00, \$7C, \$84, \$8E, \$80, \$80, \$84, \$7C, 0
	>81	* LETTER "V"	
	>82	*****	
	>83	LV	
3CCB: 00 0C 0C			
3CCF: 12 12 21			

3CCE:	12	12	21			
3CD1:	21	21		>84	DFB	0,\$0C,\$0C,\$12,\$12,\$21,\$21,\$21
				>85		
				>86		
					POS	
3CD3:	85	02		>87	STA	ATWAIT
3CD5:	95	20		>88	STA	ATSAIN,X
3CD7:	29	0F		>89	AND	#\$0F
3CD9:	A8			>90	TAY	
3CDA:	A5	DD		>91	LDA	BAND
3CDC:	A5	DD		>92	LDA	BAND
3CDE:	A5	DD		>93	LDA	BAND
3CE0:	A5	DD		>94	LDA	BAND ;CY 20.
				>95	POS10	
3CE2:	88			>96	DEY	
3CE3:	10	FD		>97	BPL	POS10
3CE5:	95	10		>98	STA	ATSALA,X
3CE7:	85	02		>99	STA	ATWAIT
3CE9:	85	2A		>100	STA	ATMVIN
3CEB:	60			>101	RTS	
				>102		
				>103		
				>104	* POSITIONS FOR CHANNEL SELECT->	
					LETPOS	
3CEC:	2E	36	3E			
3CEF:	46	4E		>105	DFB	\$2E,\$36,\$3E,\$46,\$4E

```

99          OBJ  $8D02
100         ORG  $3CFE
101         *****
102         * ORCHARD SCREEN PAINT FILE *
103         *****
104         PUT  MR.DO.ORCHARD
>1         */ MR.DO.ORCHARD LASTED:7/27/83.
>2         *****
>3         PAINT
>4         * JP INTO POS SA & SB TO GET STARTED.
>5         *****
3CFE: A9 00  >6          LDA  #SCRCOL
3D00: 85 02  >7          STA  ATWAIT
3D02: 85 09  >8          STA  ATSCOL      ;COLOR SCREEN.
>9          ;
3D04: A2 07  >10         LDX  #7
3D06: 86 DD  >11         STX  BAND      ;INIT BAND NUM FOR 8 BANDS.
3D08: A5 8F  >12         LDA  FCOLOR
3D0A: 85 08  >13         STA  ATFCOL
3D0C: A9 10  >14         LDA  #$10      ;2X PWR BALL.
3D0E: 8D 04 00 >15         STA  ATACTL      ;CY 20.
>16         ;PAINT ASYM FIELD-->
3D11: B5 98  >17         LDA  FR1L,X
3D13: 85 0E  >18         STA  ATFR1
3D15: B5 A0  >19         LDA  FR2L,X
3D17: 85 0F  >20         STA  ATFR2
3D19: B5 B0  >21         LDA  FR1R,X
3D1B: 85 0E  >22         STA  ATFR1
3D1D: B5 A8  >23         LDA  FR2R,X
3D1F: 85 0F  >24         STA  ATFR2      ;CY 48.
>25         ;
>26         ;KILL 19 CY BEFORE JMP->
3D21: A0 03  >27         LDY  #3
>28         DLAY15
3D23: 88      >29         DEY
3D24: D0 FD  >30         BNE  DLAY15
3D26: A6 DD  >31         LDX  BAND
3D28: 4C 06 3E >32         JMP  POSA-5
>33         ;CY 70.

```



```

>35 ;
>36 * A NEW BAND IS ABOUT TO BEGIN-->
>37 *-----
>38 ;Y=5
>39 *****
>40 * START OF: ASYM *
>41 * POS SA *
>42 * POS SB SEQUENCE. *
>43 *****
3D2B: 85 08 >44 STA ATFCOL
3D2D: 85 02 >45 STA ATWAIT
>46 ASYM
>47 LDA (ADAT),Y
>48 STA ATADAT
>49 BEQ ASYMA ;JP SA DONE.
3D31: 85 1B >50 LDA (BDAT),Y
3D33: F0 77 >51 STA ATBDAT
3D35: B1 F6 >52 NOP ;CY 20.
3D37: 85 1C >53 ;ASYM FIELD-->
3D39: EA
3D3A: B5 98 >54 LDA FR1L,X
3D3C: 85 0E >55 STA ATFR1
3D3E: B5 A0 >56 LDA FR2L,X
3D40: 85 0F >57 STA ATFR2
3D42: B5 B0 >58 LDA FR1R,X
3D44: 85 0E >59 STA ATFR1
3D46: B5 AB >60 LDA FR2R,X
3D48: 85 0F >61 STA ATFR2 ;CY 48.
>62 ;
3D4A: B1 F6 >63 LDA (BDAT),Y
3D4C: F0 28 >64 BEQ ASYMB ;JP SB DONE.
3D4E: B5 DE >65 LDA LODATA,X ;SET UP DATA PTRS FOR NEXT BAND.
3D50: 85 E5 >66 STA ADAT
3D52: B5 EF >67 LDA LODATB,X
3D54: 85 F6 >68 STA BDAT
3D56: A0 11 >69 LDY #17 ;LN+1.
3D58: B1 E5 >70 LDA (ADAT),Y ;CY 76.
>71 ;

```

>73 * NEITHER SPRITE IS DONE (CONT W/DATA).

>74 *****

>75 NPOSA2

3D5A: 85 1B >76

3D5C: A9 00 >77

3D5E: 8D 08 00 >78

3D61: B1 F6 >79

3D63: 85 1C >80

3D65: 88 >81

3D66: 06 DC >82

3D68: 85 02 >83

>84

3D6A: B1 E5 >85

3D6C: 85 1B >86

3D6E: B1 F6 >87

3D70: 85 1C >88

3D72: 88 >89

3D73: 4C 38 3E >90

STA ATADAT

LDA #SCRCOL

STAH ATFCOL ;FIELD OFF.

LDA (BDAT),Y

STA ATBDAT ;CY 17.

DEY

ASL PTR ;SHIFT PAGE PTR.

STA ATWAIT

NPOSB2

LDA (ADAT),Y

STA ATADAT

LDA (BDAT),Y

STA ATBDAT ;CY 16.

DEY

JMP ASYMV-4 ;PICK UP AT ASYM W/MOVE.


```

>92 * ONLY SB IS TO BE POSED-->
>93 *****
>94 ASYMB
3D76: B5 DE >95 LDA LQDATA,X
3D78: B5 E5 >96 STA ADAT
3D7A: B5 EF >97 LDA LODATB,X
3D7C: B5 F6 >98 STA BDAT
3D7E: A0 11 >99 LDY #17 ;LN+1.
3D80: EA >100 NOP
3D81: A9 00 >101 LDA #SCRCOL ;CY 76.
>102 NPOSA1
3D83: B5 08 >103 STA ATFCOL
3D85: B1 E5 >104 LDA (ADAT),Y
3D87: B5 1B >105 STA ATADAT
3D89: 88 >106 DEY
3D8A: A9 0E >107 LDA #WHITE ;DEFAULT COLOR.
3D8C: B5 07 >108 STA ATBCOL
>109 ;PREPARE TO POS SB->
3D8E: B5 F8 >110 LDA BPOF,X
3D90: B5 21 >111 STA ATSBIN
3D92: 29 0F >112 AND #$0F
3D94: AA >113 TAX
>114 ;NO PAGE SETUP NEEDED BUT->
3D95: 06 DC >115 ASL PTR ;SHIFT PAGE FLAGS.
3D97: B5 02 >116 STA ATWAIT
>117 POSB1
3D99: B1 E5 >118 LDA (ADAT),Y
3D9B: B5 1B >119 STA ATADAT
3D9D: 88 >120 DEY
3D9E: A5 DD >121 LDA BAND ;NOP.
3DA0: B1 E5 >122 LDA (ADAT),Y ;A DATA NEXT LINE.
>123 ;CY 18.
>124 LATB1
3DA2: CA >125 DEX
3DA3: 10 FD >126 BPL LATB1
3DA5: A6 DD >127 LDX BAND
3DA7: B5 11 >128 STA ATSBLA ;LATCH SB.
3DA9: 4C 3A 3E >129 JMP ASYMB-2 ;PICK UP AT ASYM W/MOVE.

```

```

>131 * AT LEAST SA MUST BE POSED-->
>132 *****
>133 ASYMA
3DAC: B1 F6 >134 LDA (BDAT),Y
3DAE: 8D 1C 00 >135 STA ATBDAT ;CY 20
>136 ;ASYM FIELD-->
3DB1: B5 98 >137 LDA FR1L,X
3DB3: 85 0E >138 STA ATFR1
3DB5: B5 A0 >139 LDA FR2L,X
3DB7: 85 0F >140 STA ATFR2
3DB9: B5 B0 >141 LDA FR1R,X
3DBB: 85 0E >142 STA ATFR1
3DBD: B5 A8 >143 LDA FR2R,X
3DBF: 85 0F >144 STA ATFR2 ;CY 48.
>145 ;
3DC1: B1 F6 >146 LDA (BDAT),Y
3DC3: F0 39 >147 BEQ ASYMA ;JP BOTH SPRITES MUST BE POSITIONE
D.
3DC5: B5 DE >148 LDA LODATA,X ;SET UP DATA PTRS FOR NEXT BAND.
3DC7: 85 E5 >149 STA ADAT
3DC9: B5 EF >150 LDA LODATB,X
3DCB: 85 F6 >151 STA BDAT
3DCD: A0 11 >152 LDY #17 ;LN+1
3DCF: B1 F6 >153 LDA (BDAT),Y ;CY 76.
>154 ;
>155 * ONLY SA MUST BE POSED-->
>156 *****
>157 POSA1
3DD1: 85 1C >158 STA ATBDAT
3DD3: A9 00 >159 LDA #SCRCOL
3DD5: 8D 08 00 >160 STA ATFCOL ;FIELD OFF.
3DD8: B5 E7 >161 LDA APOF,X
3DDA: 8D 20 00 >162 STA ATSAIN
3DDD: 29 0F >163 AND #$0F
3DDF: AA >164 TAX ;CY 21.
>165 LATCH1
3DE0: CA >166 DEX
3DE1: 10 FD >167 BPL LATCH1
3DE3: 85 10 >168 STA ATSALA ;LATCH SA.
3DE5: A6 DD >169 LDX BAND
3DE7: 85 02 >170 STA ATWAIT
>171 ;
>172 * DON'T POS SPRITE B (CONT W/DATA).
>173 *****
>174 NPOSB
3DE9: 88 >175 DEY
3DEA: B1 F6 >176 LDA (BDAT),Y
3DEC: 85 1C >177 STA ATBDAT
3DEE: A9 9A >178 LDA #BLUE ;DEFAULT COLOR.
3DF0: 85 06 >179 STA ATACOL
3DF2: 88 >180 DEY
>181 ;SELECT SA PAGE-->
3DF3: A9 3A >182 LDA #>IMG1
3DF5: 06 DC >183 ASL PTR
3DF7: 69 00 >184 ADC #0
3DF9: 85 E6 >185 STA Hidata
>186 ;
3DFB: 4C 38 3E >187 JMP ASYMV-4 ;PICK UP AT ASYMV.

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>189 * BOTH SA & SB MUST BE POSED-->
>190 *****
>191 ASYMAB
>192 ;CY 56.
3DFE: B5 DE >193 LDA LODATA,X ;SET UP DATA PTRS FOR NEXT BAND.
3E00: B5 E5 >194 STA ADAT
3E02: B5 EF >195 LDA LODATB,X
3E04: B5 F6 >196 STA BDAT
3E06: A9 00 >197 LDA #SCRCOL
3E08: 8D 08 00 >198 STAH ATFCOL ;CY 76.
>199 POSA
3E0B: B5 E7 >200 LDA APOF,X
3E0D: 8D 20 00 >201 STAH ATSAIN
3E10: 29 0F >202 AND #OF
3E12: A8 >203 TAY
>204 ;FIG SA PAGE->
3E13: A9 3A >205 LDA #>IMG1
3E15: 06 DC >206 ASL PTR
3E17: 69 00 >207 ADC #0 ;CY 21.
>208 LAT
3E19: 88 >209 DEY
3E1A: 10 FD >210 BPL LAT
3E1C: 85 10 >211 STA ATSALA ;LATCH SA.
3E1E: 85 E6 >212 STA HIDATA
3E20: A9 0E >213 LDA #WHITE ;DEFAULT COLOR.
3E22: 85 02 >214 STA ATWAIT
>215 POSB
3E24: 85 07 >216 STA ATBCOL ;MR DO COLOR.
3E26: A9 9A >217 LDA #BLUE ;DEFAULT COLOR.
3E28: 85 06 >218 STA ATACOL ;DIG COLOR.
3E2A: B5 F8 >219 LDA BPOF,X
3E2C: 85 21 >220 STA ATSBIN
3E2E: 29 0F >221 AND #OF
3E30: A8 >222 TAY ;CY 19.
>223 LATB
3E31: 88 >224 DEY
3E32: 10 FD >225 BPL LATB
3E34: A0 0F >226 LDY #15 ;LN-1
3E36: 85 11 >227 STA ATSBLA ;LATCH SB.
3E38: B1 E5 >228 LDA (ADAT),Y
3E3A: 85 02 >229 STA ATWAIT
>230 ;

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```

>232 * ASYM FIELD W/FINE POSITIONING
>233 *****
>234 ASYMV
3E3C: 85 2A >235 STA ATMVIN ;FINE POSITION.
3E3E: 85 1B >236 STA ATADAT
3E40: A5 8F >237 LDA FCOLOR
3E42: 85 08 >238 STA ATFCOL ;FIELD ON.
3E44: B1 F6 >239 LDA (BDAT),Y
3E46: 85 1C >240 STA ATBDAT ;CY 20.
>241 ;ASYM FIELD->
3E48: B5 98 >242 LDA FR1L,X
3E4A: 85 0E >243 STA ATFR1
3E4C: B5 A0 >244 LDA FR2L,X
3E4E: 85 0F >245 STA ATFR2
3E50: B5 B0 >246 LDA FR1R,X
3E52: 85 0E >247 STA ATFR1
3E54: B5 AB >248 LDA FR2R,X
3E56: 85 0F >249 STA ATFR2 ;CY 48.
>250 ;
>251 ;DO SA COLOR TEST HERE-->
3E58: A9 00 >252 LDA #<CHERRY
3E5A: C5 F6 >253 CMP BDAT
3E5C: F0 04 >254 BEQ YCHRY ;JP IF CHERRY.
3E5E: A9 00 >255 LDA #0
3E60: F0 06 >256 BEQ NCHRY
>257 YCHRY
3E62: A9 22 >258 LDA #RED
3E64: 85 07 >259 STA ATBCOL ;COLOR CHERRY.
3E66: B5 90 >260 LDA CHERRYC,X
>261 NCHRY
3E68: 85 05 >262 STA ATBCTL
3E6A: 88 >263 DEY
3E6B: A9 00 >264 LDA #SCRCOL ;FIELD OFF.
3E6D: 85 02 >265 STA ATWAIT ;CY 75. (WORST CASE).

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>267 * SPRITE DATA LINE 1--->
>268 * (ALT. COLOR TESTS,MIS TESTS).
>269 *****
>270 SDAT1
3E6F: 85 08 >271 STA ATFCOL ;FLD OFF.
3E71: B1 E5 >272 LDA (ADAT),Y
3E73: 85 1B >273 STA ATADAT
3E75: B1 F6 >274 LDA (BDAT),Y
3E77: 85 1C >275 STA ATBDAT ;CY 19.
>276 ;
3E79: A9 3A >277 LDA #<APEND ;E-O-APPLE IMAGES.
3E7B: C5 E5 >278 CMP ADAT
3E7D: 90 04 >279 BCC MTEST ;JP NOT APPLE.
3E7F: A9 28 >280 LDA #ORANGE
3E81: 85 06 >281 STA ATACOL ;COLOR APPLE.
>282 ;CY 31
>283 MTEST
3E83: A5 BA >284 LDA MSBAND
3E85: C5 DD >285 CMP BAND
3E87: D0 08 >286 BNE NOMIS ;JP NOT MISSLE BAND.
3E89: C4 B9 >287 CPY MISLN
3E8B: D0 04 >288 BNE NOMIS ;JP NOT MISSLE LINE.
3E8D: A9 02 >289 LDA #2
3E8F: 85 1D >290 STA ATENMA ;TURN MISSLE ON.
>291 NOMIS
3E91: 88 >292 DEY
3E92: 85 02 >293 STA ATWAIT

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>295 * SPRITE DATA,END-OF-BAND & END-OF-PLAYFIELD TESTING.
>296 *****
>297 SDAT2
3E94: B1 E5 >298 LDA (ADAT),Y
3E96: B5 1B >299 STA ATADAT
3E98: B1 F6 >300 LDA (BDAT),Y
3E9A: B5 1C >301 STA ATBDAT
3E9C: A5 BA >302 LDA MSBAND
3E9E: C5 DD >303 CMP BAND ;CY 22.
3EA0: F0 0A >304 BEQ MIS1 ;J IF MIS BAND.
3EA2: CA >305 DEX ;DEC BAND INCASE NUBAND.
3EA3: EA >306 NOP
3EA4: EA >307 NOP
3EA5: EA >308 NOP
3EA6: EA >309 NOP
3EA7: EA >310 NOP
3EA8: EA >311 NOP
3EA9: 4C BE 3E >312 JMP CYCL41 ;CY 41
>313 MIS1
3EAC: C4 B9 >314 CPY MISLN ;CY 28.
3EAE: F0 07 >315 BEQ MIS2 ;J IF MIS LN.
3EB0: CA >316 DEX ;DEC BAND INCASE NUBAND.
3EB1: EA >317 NOP
3EB2: EA >318 NOP
3EB3: EA >319 NOP
3EB4: 4C BE 3E >320 JMP CYCL41 ;CY 41
>321 MIS2
3EB7: A9 02 >322 LDA #2 ;MIS ON.
3EB9: B5 1D >323 STA ATENMA ;CY 36.
3EBB: A6 DD >324 LDX BAND ;DEX INCASE NU BAND TIME.
3EBD: CA >325 DEX ;CY 41
>326 CYCL41
>327 ;
3EBE: B8 >328 DEY
3EBF: F0 34 >329 BEQ NUBAND ;MUST JP A CY 46.
3EC1: A6 DD >330 LDX BAND ;GET CORRECT BAND NUM BACK.
3EC3: A5 8F >331 LDA FCOLOR
3EC5: B5 02 >332 STA ATWAIT

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	>334	* ASYM FIELD W/SPRITE DATA.	
	>335	*****	
	>336	ASYMD	
3EC7:	85 08	>337	STA ATFCOL
3EC9:	B1 E5	>338	LDA (ADAT),Y
3ECB:	85 1B	>339	STA ATADAT
3ECD:	B1 F6	>340	LDA (BDAT),Y
3ECF:	8D 1C 00	>341	STAH ATBDAT ;CY 20.
		>342	;ASYM FIELD->
3ED2:	B5 98	>343	LDA FR1L,X
3ED4:	85 0E	>344	STA ATFR1
3ED6:	B5 A0	>345	LDA FR2L,X
3ED8:	85 0F	>346	STA ATFR2
3EDA:	B5 B0	>347	LDA FR1R,X
3EDC:	85 0E	>348	STA ATFR1
3EDE:	B5 A8	>349	LDA FR2R,X
3EE0:	85 0F	>350	STA ATFR2 ;CY 48.
		>351	;
3EE2:	88	>352	DEY
		>353	
3EE3:	EA	>354	NOP
3EE4:	EA	>355	NOP
3EE5:	EA	>356	NOP
3EE6:	EA	>357	NOP
3EE7:	EA	>358	NOP
3EE8:	EA	>359	NOP
		>360	;
3EE9:	A9 00	>361	LDA #0
3EEB:	85 1D	>362	STA ATENMA ;TURN MISSILE OFF.
3EED:	AE DD 00	>363	LDXH BAND
3EF0:	A9 00	>364	LDA #SCRCOL
3EF2:	4C 6F 3E	>365	JMP SDAT1 ;CY 76.
		>366	;

	>368	NUBAND	
3EF5: 85 2B	>369	STA ATREMV	
3EF7: C6 DD	>370	DEC BAND	
3EF9: 30 0B	>371	BMI FIN	;JP DONE ALL BANDS.
	>372		;
	>373	* PREPARE TO START A NEW BAND *	
	>374	*****	
3EFB: A9 00	>375	LDA #0	
3EFD: 85 05	>376	STA ATBCTL	;1X,1C=DEFAULT CONTROL.
3EFF: 85 1D	>377	STA ATENMA	;MIS OFF.
3F01: A5 8F	>378	LDA FCOLOR	
3F03: 4C 2B 3D	>379	JMP ASYM-4	;CY 70.
	>380	* PLAYFIELD IS DONE-->	
	>381	*****	
	>382	FIN	
3F06: 85 02	>383	STA ATWAIT	
3F08: A9 00	>384	LDA #0	
3F0A: 85 1B	>385	STA ATADAT	
3F0C: 85 1C	>386	STA ATBDAT	
3F0E: 85 1D	>387	STA ATENMA	;PWR BALL OFF.
	>388	* PAINT A BAR AT BOTTOM OF PLAYFIELD->	
	>389	*****	
3F10: A9 FF	>390	LDA #\$FF	
	>391		;FLD ON->
3F12: A4 8F	>392	LDY FCOLOR	
3F14: 84 08	>393	STY ATFCOL	
3F16: 85 0E	>394	STA ATFR1	
3F18: 85 0F	>395	STA ATFR2	
	>396		;
3F1A: 85 02	>397	STA ATWAIT	
3F1C: A9 00	>398	LDA #SCRCOL	
3F1E: 85 08	>399	STA ATFCOL	;FLD OFF.
3F20: A2 00	>400	LDX #0	
3F22: 86 0D	>401	STX ATFR0	
3F24: 86 0E	>402	STX ATFR1	
3F26: 86 0F	>403	STX ATFR2	
	>404		;


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3F28: A9 39    >406          LDA #>MRDOLL
3F2A: 85 F0    >407          STA TEMP2
3F2C: 85 F2    >408          STA TEMP4          ; SETUP INV PTRS HI.
3F2E: A9 2A    >409          LDA #<MRDOLL+8
3F30: 85 EF    >410          STA TEMP1
3F32: 85 F1    >411          STA TEMP3          ; IBID LO.
3F34: A2 34    >412          LDX #<NULLB          ; NULL IMG.
                 >413          ;
                 >414          * LATCH SPRITES FOR INVENTORY->
                 >415          *****
3F36: A0 04    >416          LDY #4
3F38: 85 02    >417          STA ATWAIT
                 >418          POSI
3F3A: 88        >419          DEY
3F3B: 10 FD    >420          BPL POSI
3F3D: 85 10    >421          STA ATSALA
3F3F: EA        >422          NOP
3F40: EA        >423          NOP
3F41: EA        >424          NOP
3F42: EA        >425          NOP
3F43: EA        >426          NOP
3F44: A5 DD    >427          LDA BAND
3F46: 85 11    >428          STA ATSBLA
                 >429          ;
3F48: 85 02    >430          STA ATWAIT
3F4A: A9 D6    >431          LDA #GREEN
3F4C: 85 09    >432          STA ATSCOL
3F4E: A9 0E    >433          LDA #WHITE
3F50: 85 06    >434          STA ATACOL
3F52: 85 07    >435          STA ATBCOL
                 >436          ;
                 >437          * PAINT MR DO INVENTORY-->
                 >438          *****
3F54: A4 DB    >439          LDY DOINV          ; # MR DO'S LEFT.
3F56: B9 84 3F >440          LDA INVTBL,Y
3F59: 30 04    >441          BMI INV2          ; JP INV<4 BUT >0.
3F5B: D0 04    >442          BNE INV3          ; JP SOME DO'S LEFT.
3F5D: 86 EF    >443          STX TEMP1          ; SA=NULL
                 >444          INV2
3F5F: 86 F1    >445          STX TEMP3          ; SB= NULL.
                 >446          INV3
3F61: 85 04    >447          STA ATACTL
3F63: 4A        >448          LSR
3F64: 4A        >449          LSR
3F65: 4A        >450          LSR
3F66: 4A        >451          LSR
3F67: 85 05    >452          STA ATBCTL
                 >453          ;
                 >454          * PAINT MR.DO INVENTORY->
                 >455          *****
                 >456          INVENT
3F69: A0 07    >457          LDY #7
                 >458          DOLOOP
3F6B: 85 02    >459          STA ATWAIT
3F6D: B1 EF    >460          LDA (TEMP1),Y
3F6F: 85 1B    >461          STA ATADAT
3F71: B1 F1    >462          LDA (TEMP3),Y
3F73: 85 1C    >463          STA ATBDAT
3F75: 88        >464          DEY
3F76: 10 F3    >465          BPL DOLOOP          ; PAINT MR.DO INVENTORY.
3F78: C8        >466          INY
3F79: 84 1B    >467          STY ATADAT
3F7B: 84 1C    >468          STY ATBDAT
3F7D: 84 1B    >469          STY ATADAT
3F7F: 84 1C    >470          STY ATBDAT

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3F81: 4C 07 30 >471
>472 INVTBL

JMP BVISW ;GO DO BOTVI.

3F84: 00 80 81

3F87: 83 03 13

3F8A: 33 >473

DFB 0,\$80,\$81,\$83,\$03,\$13,\$33


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106 *****
107 * DISPLAY RTN FOR 6 SPRITES *
108 *****
109 PUT MR.DO.SCORE RTN
>1 */SCORE RTN LAST EDIT: 6/23/83
>2 *.....SCORE.....
>3 *FUNCTION SCORE DISPLAYS A 6 DIGIT SCORE
>4 *
>5 SCORE
3F8B: 85 02 >6 STA ATWAIT
3F8D: A2 00 >7 LDX #BLACK
3F8F: 86 09 >8 STX ATSCOL
3F91: A9 03 >9 LDA #3
3F93: 85 02 >10 STA ATWAIT
3F95: 85 04 >11 STA ATACTL ;1X 3C 85
3F97: 85 05 >12 STA ATBCTL
3F99: 85 25 >13 STA ATASEL ;GET READY TO LOAD OUTER BUFF
3F9B: 85 26 >14 STA ATBSEL
>15 *ADJ INCR SO SPRITES ARE SIDE BY SIDE
3F9D: A9 10 >16 LDA #$10
3F9F: 85 20 >17 STA ATSAIN
3FA1: 0A >18 ASL
3FA2: 85 21 >19 STA ATSBIN
3FA4: EA >20 NOP
3FA5: EA >21 NOP
3FA6: EA >22 NOP
3FA7: EA >23 NOP
3FA8: EA >24 NOP
3FA9: EA >25 NOP
3FAA: EA >26 NOP
3FAB: 85 10 >27 STA ATSALA ;LATCH SPRITE A
3FAD: 85 11 >28 STA ATSBLA ;B 9 PIXLES LATER
>29 * ENTER HERE FOR 6 SPRITES W/O POS.
>30 SCORE1
3FAF: 85 02 >31 STA ATWAIT
3FB1: 85 2A >32 STA ATMVIN ;MOVE FINE INCR
>33 ;
3FB3: A9 07 >34 LDA #7
3FB5: 85 EF >35 STA TEMP1 ;LINE COUNT
>36 *ACTUAL PAINTING OF DIGITS
>37 SC4
3FB7: A4 EF >38 LDY TEMP1
3FB9: B1 F2 >39 LDA (PD10K),Y ;GET 100K DATA
3FBB: 85 1B >40 STA ATADAT ;WRITE TO OUTER BUFF (UNSEEN)
3FBD: 85 02 >41 STA ATWAIT
3FBF: B1 F4 >42 LDA (PD10K),Y ;GET 10K DATA
3FC1: 85 1C >43 STA ATBDAT ;TO OUTER BUFF (100K SEEN NOW)
3FC3: B1 F6 >44 LDA (PD1K),Y ;GET 1K DATA
3FC5: 85 1B >45 STA ATADAT ;TO BUFFER (10K SEEN NOW)
3FC7: B1 F8 >46 LDA (PD100),Y ;GET 100'S DATA
3FC9: 85 F0 >47 STA TEMP2 ;TUCK AWAY
3FCB: B1 FA >48 LDA (PD10),Y ;GET 10'S DATA
3FCD: AA >49 TAX ;TUCK AWAY IH X
3FCE: B1 FC >50 LDA (PD1),Y ;1'S DATA
3FD0: A8 >51 TAY ;SAVE IT FOR TIME CRITICAL
3FD1: A5 F0 >52 LDA TEMP2 ;RETRIEVE 100'S DATA
3FD3: 85 1C >53 STA ATBDAT ;100 TO BUFF, 1K SEEN
3FD5: 86 1B >54 STX ATADAT ;10 TO BUFF, 100 SEEN NOW
3FD7: 84 1C >55 STY ATBDAT ;1 TO BUFF, 10 SEEN NOW
3FD9: 84 1B >56 STY ATADAT ;DUMMY WRITE TO BUFF, 1 SEEN NOW
3FDB: C6 EF >57 DEC TEMP1 ;LINE COUNT
3FDD: 10 DB >58 BPL SC4 ;LOOPTILL DONE
>59 *
>60 *RESET CONTROL AND DATA REGS

```

3FDF: A9 00 >61
3FE1: 85 1B >62
3FE3: 85 1C >63
3FE5: 85 2B >64
 >65 *
 >66 *
3FE7: 60 >67

LDA #0
STA ATADAT
STA ATBDAT
STA ATREMV
STA ATASEL
STA ATBSEL
RTS

;SEL IMMED MODE.

	111	OBJ	\$9000
	112	ORG	\$3FFC
3FFC: 0E 30	113	DA	INITSW
	114	END	

--End assembly--

2 bytes

Errors: 0

Symbol table - alphabetical order:

ADAT	=\$E5	ADUR	=\$B8	AIDX	=\$B6	ALFSET	=\$33E0
ALPHA	=\$B8	AMUSFW	=\$3673	AMUSVT	=\$36D0	ANIM8	=\$8E
ANIM9	=\$3054	APBAND	=\$D0	APEND	=\$3A3A	APFALL	=\$8D
APIMG	=\$323C	APLFR5	=\$312F	APLFRM	=\$312A	APOF	=\$E7
? APPLE0	=\$3A00	APPLE1	=\$3A00	APPLE2	=\$3A0E	APPLE3	=\$3A1C
APPLE4	=\$3A2A	APPLE5	=\$3A38	APPOF	=\$D4	APR50	=\$30F1
APRAM	=\$30C5	? AS1FW	=\$3673	? AS1VT	=\$36D0	? AS2FW	=\$36A4
? AS2VT	=\$3701	? AS3FW	=\$36C4	? AS3VT	=\$3721	ASYM	=\$3D2F
ASYMA	=\$3DAC	ASYMAB	=\$3DFE	ASYMB	=\$3D76	? ASYMD	=\$3EC7
ASYMV	=\$3E3C	ATACOL	=\$06	ATACTL	=\$04	ATADAT	=\$1B
ATADIV	=\$17	ATASEL	=\$25	ATAVOL	=\$19	ATAWAV	=\$15
ATBCOL	=\$07	ATBCTL	=\$05	ATBDAT	=\$1C	ATBDIV	=\$18
ATBLNK	=\$01	ATBSEL	=\$26	ATBVOL	=\$1A	ATBWAV	=\$16
ATENFM	=\$1F	ATENMA	=\$1D	? ATENMB	=\$1E	ATFCOL	=\$08
? ATFCTL	=\$0A	ATFR0	=\$0D	ATFR1	=\$0E	ATFR2	=\$0F
? ATFSEL	=\$27	? ATHORC	=\$03	? ATJBA	=\$3C	? ATJBB	=\$3D
ATMVIN	=\$2A	ATREMV	=\$2B	ATSAIN	=\$20	ATSALA	=\$10
ATSBIN	=\$21	ATSBLA	=\$11	ATSCOL	=\$09	? ATSYNC	=\$00
ATWAIT	=\$02	BAND	=\$DD	BAND1	=\$34A2	BDAT	=\$F6
BDUR	=\$B9	? BEEP	=\$37F3	? BELLS	=\$37FF	BIDX	=\$87
BLACK	=\$00	BLANK	=\$38E0	BLUE	=\$9A	BMUSFW	=\$372D
BMUSVT	=\$378A	? BOOP	=\$37F9	BOTOFF	=\$3653	? BOTTIM	=\$9F
BOTVI	=\$202E	BPOF	=\$F8	? BROWN	=\$12	? BS1FW	=\$372D
? BS1VT	=\$378A	? BS2FW	=\$375E	? BS2VT	=\$37BB	? BS3FW	=\$377E
? BS3VT	=\$37DB	BVISW	=\$3007	CDAT	=\$3464	? CHER1	=\$3807
? CHER2	=\$3814	? CHER3	=\$3821	? CHER4	=\$382E	? CHER5	=\$383B
? CHER6	=\$3848	CHERRY	=\$3900	CHERRY5	=\$345C	CHERRYC	=\$90
? CHERRYT	=\$8C	CHRP05	=\$3663	COLECO	=\$39AA	COMP1	=\$3191
COMP15	=\$319A	COMP2	=\$31A2	COMP3	=\$31B2	COMPET	=\$318C
CPETE	=\$31AF	CPETE2	=\$31B7	CYCL41	=\$3EBE	DATA1	=\$3890
DATA2	=\$3C00	? DEADSN	=\$37EB	DIG12	=\$3109	DIG13	=\$3112
DIG15	=\$3115	DIG17	=\$3122	? DIG18	=\$3127	DIG33	=\$3144
DIG40	=\$3153	DIG45	=\$3162	DIG50	=\$3171	DIG60	=\$317D
DIG99	=\$3189	DIGBAND	=\$BE	DIGDAT	=\$C4	? DIGDIR	=\$C6
DIGIMG	=\$324C	? DIGINV	=\$8A	? DIGIO	=\$CC	DIGITS	=\$3890
DIGLL	=\$3A70	DIGLR	=\$3A4F	DIGPOF	=\$C1	? DIGSPD	=\$C8
? DIGTIM	=\$CA	DLAY15	=\$3D23	DO1	=\$3378	DOBAND	=\$BD
DODAT	=\$C3	DODEAD	=\$20	DOINV	=\$DB	DOLOOP	=\$3F6B
DOPOF	=\$C0	DOTIME	=\$3477	? DOWND	=\$01	? DOWNI	=\$04
DUGLL	=\$3A92	DUGLR	=\$3AB4	DUGRL	=\$3B20	DUGRR	=\$3B00
EIGHT	=\$38D0	END	=\$3FFE	ENDMID	=\$325C	FCOLOR	=\$8F
FIN	=\$3F06	FIRST	=\$31CD	FIVE	=\$38B8	FOUR	=\$38B0
FR1L	=\$98	FR1R	=\$B0	FR2L	=\$A0	FR2R	=\$A8
FRAMEH	=\$85	FRAMEL	=\$84	FTEST	=\$346E	GAME	=\$80
GAMETB	=\$39C3	GAMQVR	=\$40	GAMSPD	=\$327B	? GOLD	=\$16
GREEN	=\$D6	HIDATA	=\$E6	HIDATB	=\$F7	HOLD10	=\$335B
HOLD7	=\$3329	HOLD9	=\$3340	HOLDUP	=\$3312	ICHERRY	=\$3442
IMG1	=\$3A00	? IMG2	=\$3B00	IMG5	=\$32B6	IMG6	=\$32E1
INITSW	=\$300E	INV2	=\$3F5F	INV3	=\$3F61	? INVENT	=\$3F69
INITRI	=\$3504	IOAD15	=\$0201	IOAD16	=\$0202	IOA	=\$3084

?	JOYADN	=\$20	?	JOYALT	=\$40	?	JOYART	=\$80	?	JOYAUF	=\$10
?	JOYBDN	=\$02	?	JOYBLT	=\$04	?	JOYBRT	=\$08	?	JOYBUP	=\$01
?	JOYDAT	=\$0280		LA	=\$3C60		LASTJY	=\$B8		LAT	=\$3E19
	LATB	=\$3E31		LATB1	=\$3DA2		LATCH1	=\$3DE0	?	LBLUE	=\$96
	LC	=\$3C70		LD	=\$3C20		LE	=\$3C30		LE2	=\$3C90
?	LEFTD	=\$03	?	LEFTI	=\$0C	?	LETIMG	=\$3252		LETPOS	=\$3CEC
	LETRA	=\$3BCD		LETRE	=\$3B49		LETRR	=\$3BAC		LETRT	=\$3B8B
	LETRX	=\$3B6A		LETTBL	=\$39CF	?	LETTTS	=\$3C00		LG	=\$3CC2
	LL	=\$3C78		LM	=\$3C00		LN	=\$3CA0		LO	=\$3C80
	LODATA	=\$DE		LODATB	=\$EF		LOH	=\$3C28		LPR	=\$3C88
	LR	=\$3C08		LS	=\$3CB0		LSE	=\$3C98		LSTLFT	=\$3052
	LT	=\$3C50		LTS	=\$3CAB		LV	=\$3CCB		LX	=\$3C40
	MDON	=\$34D6		MDPOF	=\$34DA		MDPTL	=\$3248		MDPTR	=\$324A
	MIDTIM	=\$AD		MIS1	=\$3EAC		MIS2	=\$3EB7	?	MISDIR	=\$BC
	MISLN	=\$B9		MISPOF	=\$BB		MODE	=\$DA	?	MRDOIMG	=\$3248
	MRDOLL	=\$3922		MRDOLR	=\$3988		MRDORL	=\$3944		MRDORR	=\$3966
	MRDOT1	=\$39B6		MRDOTB	=\$39B7		MSBAND	=\$BA		MTEST	=\$3E83
	MUS15	=\$3541		MUS2	=\$350E		MUS25	=\$354A		MUS5	=\$3522
	MUS50	=\$354C		MUS55	=\$3564		MUS65	=\$3583		MUS75	=\$358C
	MUSIC	=\$3507		MUX	=\$CE		NCHRY	=\$3E68		NDIG	=\$3038
	NINE	=\$38D8		NODO	=\$34A9		NOMIS	=\$3E91		NOPWR	=\$3440
	NORK	=\$3068		NORM	=\$33EF		NORMAP	=\$30C1		NOTSEL	=\$3353
?	NPOSA1	=\$3D83	?	NPOSA2	=\$3D5A	?	NPOSB	=\$3DE9	?	NPOSB2	=\$3D6A
	NUBAND	=\$3EF5		NULL	=\$3CB8		NULL1	=\$3AE4		NULLB	=\$3934
	NULLTB	=\$39BD		OK2	=\$301F		ONE	=\$3898		ORANGE	=\$28
	ORCHARD	=\$338B		ORK	=\$306B		ORKSCR	=\$329D		OVERTB	=\$39C9
	PAINT	=\$3CFE		PD1	=\$FC		PD10	=\$FA		PD100	=\$F8
	PD100K	=\$F2		PD10K	=\$F4		PD1K	=\$F6		PLAY	=\$10
	POS	=\$3CD3		POS10	=\$3CE2		POSA	=\$3E0B	?	POSA1	=\$3DD1
?	POSB	=\$3E24	?	POSB1	=\$3D99		POSI	=\$3F3A		POSTBL	=\$35C2
	PRESNT	=\$39B0		PTR	=\$DC		PTRBIT	=\$31DE		PTRDON	=\$31E7
?	PURPLE	=\$68		PW3	=\$34E1		PWAIT	=\$34E1	?	PWRTIM	=\$D8
?	RANDOM	=\$D9		RED	=\$22		RESUM	=\$80		REVA	=\$3C68
	REVE	=\$3C38		REVR	=\$3C10		REVT	=\$3C58		REVTBL	=\$39D5
	REX	=\$3C48	?	RIGHTD	=\$02	?	RIGHTI	=\$08	?	ROUND	=\$81
	SBIMG	=\$3900		SC4	=\$3FB7		SCORE	=\$3F8B		SCORE1	=\$3FAF
	SCORHI	=\$83		SCORLO	=\$82		SCORTB	=\$38E8		SCRCOL	=\$00
	SDAT1	=\$3E6F	?	SDAT2	=\$3E94		SELECT	=\$30	?	SETRAM	=\$307C
	SEVEN	=\$38C8		SIX	=\$38C0		SMLR	=\$3C18		SND5	=\$35A6
	SND80	=\$35BF		SND99	=\$35C1		SNDTBL	=\$37EB		SOUND	=\$3591
	SPR6	=\$39E7		SPRIT6	=\$39DB	?	SWIADF	=\$40	?	SWIBDF	=\$80
?	SWICOL	=\$08	?	SWIRES	=\$01	?	SWISEL	=\$02	?	SWITCH	=\$0282
	TEMP1	=\$EF	?	TEMP10	=\$F8		TEMP11	=\$EC		TEMP12	=\$ED
	TEMP13	=\$EE		TEMP14	=\$EA		TEMP15	=\$EB		TEMP2	=\$F0
	TEMP3	=\$F1		TEMP4	=\$F2	?	TEMP5	=\$F3	?	TEMP6	=\$F4
?	TEMP7	=\$F5	?	TEMP8	=\$F6	?	TEMP9	=\$F7		TEST2	=\$327F
	THREE	=\$38AB		TIME64	=\$0296		TIMER	=\$0284		TITL11	=\$32C8
	TITL12	=\$32CE		TITLE	=\$325C		TITLE0	=\$32A0		TITLE1	=\$32BF
	TITLE2	=\$32EA		TITLE3	=\$32F3		TITLE9	=\$3303		TOP2	=\$3012
	TOPOFF	=\$3643	?	TOPTIM	=\$A9		TRACK	=\$50		TRY1	=\$3223
	TRY9	=\$3236		TRYON	=\$321E		TURN5	=\$3203		TURNON	=\$31C0
	TWO	=\$38A0		TWODIG	=\$302B	?	UPD	=\$00	?	UPI	=\$00
	UPPTR	=\$3036		VOLTBL	=\$37E7		WAIT5	=\$3383		WHITE	=\$0E
	WORDS	=\$39AA		XTRADO	=\$70		YCHRY	=\$3E62		YELLOW	=\$1A
	ZERO	=\$3890									

Symbol table - numerical order:

?	ATSYNC	=\$00	BLACK	=\$00	SCRCOL	=\$00	?	UPI	=\$00		
?	UPD	=\$00	ATBLNK	=\$01	?	JOYBUP	=\$01	?	SWIRES	=\$01	
?	DOWND	=\$01	ATWAIT	=\$02	?	JOYBDN	=\$02	?	SWISEL	=\$02	
?	RIGHTD	=\$02	?	ATHORC	=\$03	?	LEFTD	=\$03		ATACTL	=\$04
?	JOYBLT	=\$04	?	DOWNI	=\$04		ATBCTL	=\$05		ATACOL	=\$06
	ATBCOL	=\$07		ATFCOL	=\$08	?	JOYBRT	=\$08	?	SWICOL	=\$08
?	RIGHTI	=\$08		ATSCOL	=\$09	?	ATECTI	=\$0A	?	LEFTI	=\$0C

RIGHT1	ATSCUL	ATFLCL	LEFT1
ATFR0 = \$0D	ATFR1 = \$0E	WHITE = \$0E	ATFR2 = \$0F
ATSALA = \$10	JOYAUP = \$10	PLAY = \$10	ATSBLA = \$11
BROWN = \$12	ATAWAV = \$15	ATBWAV = \$16	GOLD = \$16
ATADIV = \$17	ATBDIV = \$18	ATAVOL = \$19	ATBVOL = \$1A
YELLOW = \$1A	ATADAT = \$1B	ATBDAT = \$1C	ATENMA = \$1D
ATENMB = \$1E	ATENFM = \$1F	ATSAIN = \$20	JOYADN = \$20
DODEAD = \$20	ATSBIN = \$21	RED = \$22	ATASEL = \$25
ATBSEL = \$26	ATFSEL = \$27	ORANGE = \$28	ATMVIN = \$2A
ATREMV = \$2B	SELECT = \$30	ATJBA = \$3C	ATJBB = \$3D
JOYALT = \$40	SWIADF = \$40	GAMQVR = \$40	TRACK = \$50
PURPLE = \$68	XTRADO = \$70	JOYART = \$80	SWIBDF = \$80
GAME = \$80	RESUM = \$80	ROUND = \$81	SCORLO = \$82
SCORHI = \$83	FRAMEL = \$84	FRAMEH = \$85	AIDX = \$86
BIDX = \$87	ADUR = \$88	BDUR = \$89	DIGINV = \$8A
ALPHA = \$8B	CHERRYT = \$8C	APFALL = \$8D	ANIM8 = \$8E
FCOLOR = \$8F	CHERRYC = \$90	LBLUE = \$96	FR1L = \$98
BLUE = \$9A	BOTTIM = \$9F	FR2L = \$A0	FR2R = \$A8
TOPTIM = \$A9	MIDTIM = \$AD	FR1R = \$B0	LASTJY = \$B8
MISLN = \$B9	MSBAND = \$BA	MISPOF = \$BB	MISDIR = \$BC
DOBAND = \$BD	DIGBAND = \$BE	DOPOF = \$C0	DIGPOF = \$C1
DODAT = \$C3	DIGDAT = \$C4	DIGDIR = \$C6	DIGSPD = \$C8
DIGTIM = \$CA	DIGIQ = \$CC	MUX = \$CE	APBAND = \$D0
APPOF = \$D4	GREEN = \$D6	PWRTIM = \$D8	RANDOM = \$D9
MODE = \$DA	DOINV = \$DB	PTR = \$DC	BAND = \$DD
LODATA = \$DE	ADAT = \$E5	HIDATA = \$E6	APOF = \$E7
TEMP14 = \$EA	TEMP15 = \$EB	TEMP11 = \$EC	TEMP12 = \$ED
TEMP13 = \$EE	LODATB = \$EF	TEMP1 = \$EF	TEMP2 = \$F0
TEMP3 = \$F1	TEMP4 = \$F2	PD100K = \$F2	TEMP5 = \$F3
TEMP6 = \$F4	PD10K = \$F4	TEMP7 = \$F5	BDAT = \$F6
TEMP8 = \$F6	PD1K = \$F6	HIDATB = \$F7	TEMP9 = \$F7
BPOF = \$F8	TEMP10 = \$F8	PD100 = \$F8	PD10 = \$FA
PD1 = \$FC	JOYDAT = \$0280	IOADIR = \$0281	SWITCH = \$0282
IOBDIR = \$0283	TIMER = \$0284	TIME64 = \$0296	BQTVI = \$202E
BVISW = \$3007	INITSW = \$300E	TOP2 = \$3012	OK2 = \$301F
TWODIG = \$302B	UPPTR = \$3036	NDIG = \$3038	LSTLFT = \$3052
ANIM9 = \$3054	NORK = \$3068	ORK = \$306B	SETRAM = \$307C
ISA = \$3086	NORMAP = \$30C1	APRAM = \$30C5	APR50 = \$30F1
DIG12 = \$3109	DIG13 = \$3112	DIG15 = \$3115	DIG17 = \$3122
DIG18 = \$3127	APLFRM = \$312A	APLFR5 = \$312F	DIG33 = \$3144
DIG40 = \$3153	DIG45 = \$3162	DIG50 = \$3171	DIG60 = \$317D
DIG99 = \$3189	COMPET = \$318C	COMP1 = \$3191	COMP15 = \$319A
COMP2 = \$31A2	CPETE = \$31AF	COMP3 = \$31B2	CPETE2 = \$31B7
TURNON = \$31C0	FIRST = \$31CD	PTRBIT = \$31DE	PTRDON = \$31E7
TURN5 = \$3203	TRYON = \$321E	TRY1 = \$3223	TRY9 = \$3236
APIMG = \$323C	MRDOIMG = \$3248	MDPTL = \$3248	MDPTR = \$324A
DIGIMG = \$324C	LETIMG = \$3252	TITLE = \$325C	ENDMID = \$325C
GAMSPD = \$327B	TEST2 = \$327F	ORKSCR = \$329D	TITLE0 = \$32A0
IMG5 = \$32B6	TITLE1 = \$32BF	TITL11 = \$32C8	TITL12 = \$32CE
IMG6 = \$32E1	TITLE2 = \$32EA	TITLE3 = \$32F3	TITLE9 = \$3303
HOLDUP = \$3312	HOLD7 = \$3329	HOLD9 = \$3340	NOTSEL = \$3353
HOLD10 = \$335B	DO1 = \$3378	WAIT5 = \$3383	ORCHARD = \$338B
ALFSET = \$33E0	NORM = \$33EF	NOPWR = \$3440	ICHERRY = \$3442
CHERRY5 = \$345C	CDAT = \$3464	FTEST = \$346E	DOTIME = \$3477
BAND1 = \$34A2	NODO = \$34A9	MDON = \$34D6	MDPOF = \$34DA
PWAIT = \$34E1	PW3 = \$34E1	MUSIC = \$3507	MUS2 = \$350E
MUS5 = \$3522	MUS15 = \$3541	MUS25 = \$354A	MUS50 = \$354C
MUS55 = \$3564	MUS65 = \$3583	MUS75 = \$358C	SOUND = \$3591
SND5 = \$35A6	SND80 = \$35BF	SND99 = \$35C1	POSTBL = \$35C2
TOPOFF = \$3643	BOTOFF = \$3653	CHRPOS = \$3663	AMUSFW = \$3673
AS1FW = \$3673	AS2FW = \$36A4	AS3FW = \$36C4	AMUSVT = \$36D0
AS1VT = \$36D0	AS2VT = \$3701	AS3VT = \$3721	BMUSFW = \$372D
BS1FW = \$372D	BS2FW = \$375E	BS3FW = \$377E	BMUSVT = \$378A
BS1VT = \$378A	BS2VT = \$37BB	BS3VT = \$37DB	VOLTBL = \$37E7
SNDTBL = \$37EB	DEADSND = \$37EB	BEEP = \$37F3	BOOP = \$37F9
BELLS = \$37FF	CHER1 = \$3807	CHER2 = \$3814	CHER3 = \$3821
CHER4 = \$382E	CHER5 = \$383B	CHER6 = \$3848	DATA1 = \$3880

? CHER4	=\$382E	? CHER5	=\$383B	? CHER6	=\$3848	CHERS	=\$3821
DIGITS	=\$3890	ZERO	=\$3890	ONE	=\$3898	DATA1	=\$3890
THREE	=\$38A8	FOUR	=\$38B0	FIVE	=\$38B8	TWO	=\$38A0
SEVEN	=\$38C8	EIGHT	=\$38D0	NINE	=\$38D8	SIX	=\$38C0
SCORTB	=\$38E8	SBIMG	=\$3900	CHERRY	=\$3900	BLANK	=\$38E0
NULLB	=\$3934	MRDORL	=\$3944	MRDORR	=\$3966	MRDOLL	=\$3922
WORDS	=\$39AA	COLECO	=\$39AA	PRESNT	=\$39B0	MRDOLR	=\$3988
MRDOTB	=\$39B7	NULLTB	=\$39BD	GAMETB	=\$39C3	MRDOT1	=\$39B6
LETTBL	=\$39CF	REVTBL	=\$39D5	SPRIT6	=\$39DB	OVERTB	=\$39C9
IMG1	=\$3A00	? APPLE0	=\$3A00	APPLE1	=\$3A00	SPR6	=\$39E7
APPLE3	=\$3A1C	APPLE4	=\$3A2A	APPLE5	=\$3A38	APPLE2	=\$3A0E
DIGLR	=\$3A4F	DIGLL	=\$3A70	DUGLL	=\$3A92	AFEND	=\$3A3A
NULL1	=\$3AE4	? IMG2	=\$3B00	DUGRR	=\$3B00	DUGLR	=\$3AB4
LETRE	=\$3B49	LETRX	=\$3B6A	LETRT	=\$3B8B	DUGRL	=\$3B20
LETRA	=\$3BCD	DATA2	=\$3C00	? LETTRS	=\$3C00	LETRR	=\$3BAC
LR	=\$3C08	REVR	=\$3C10	SMLR	=\$3C18	LM	=\$3C00
LOH	=\$3C28	LE	=\$3C30	REVE	=\$3C38	LD	=\$3C20
REXX	=\$3C48	LT	=\$3C50	REVT	=\$3C58	LX	=\$3C40
REVA	=\$3C68	LC	=\$3C70	LL	=\$3C78	LA	=\$3C60
LPR	=\$3C88	LE2	=\$3C90	LSE	=\$3C98	LO	=\$3C80
LTS	=\$3CA8	LS	=\$3CB0	NULL	=\$3CB8	LN	=\$3CA0
LV	=\$3CCB	POS	=\$3CD3	POS10	=\$3CE2	LG	=\$3CC2
PAINT	=\$3CFE	DLAY15	=\$3D23	ASYM	=\$3D2F	LETPOS	=\$3CEC
? NPOSB2	=\$3D6A	ASYMB	=\$3D76	? NPOSA1	=\$3D83	? NPOSA2	=\$3D5A
LATB1	=\$3DA2	ASYMA	=\$3DAC	? POSA1	=\$3DD1	? POSB1	=\$3D99
? NPOSB	=\$3DE9	ASYMAB	=\$3DFE	POSA	=\$3E0B	LATCH1	=\$3DE0
? POSB	=\$3E24	LATB	=\$3E31	ASYMV	=\$3E3C	LAT	=\$3E19
NCHRY	=\$3E68	SDAT1	=\$3E6F	MTEST	=\$3E83	YCHRY	=\$3E62
? SDAT2	=\$3E94	MIS1	=\$3EAC	MIS2	=\$3EB7	NOMIS	=\$3E91
? ASYMD	=\$3EC7	NUBAND	=\$3EF5	FIN	=\$3F06	CYCL41	=\$3EBE
INV2	=\$3F5F	INV3	=\$3F61	? INVENT	=\$3F69	POSI	=\$3F3A
INVTBL	=\$3F84	SCORE	=\$3F8B	SCORE1	=\$3FAF	DOLLOP	=\$3F6B
END	=\$3FFE					SC4	=\$3FB7