

: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 * DIGIT DATA FILE *
63 *****
64 PUT MR.DO.DIGITS
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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

```

OBJ
98CF8
3CF4
ORG
ONCH,

PAC
chksum
A727
A675

LET
98CF8
3CF4
ONCH

: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
ITIONS.
>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
BUTTONS.
>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-->
>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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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. >45 ; (0=TIMER EXPIRED).
>46 ;B5-B7=NOTE IDX FOR NEXT CHERRY EA
TEN SOUND. >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 *****
>60 * CHERRY DATA *
>61 *-----*

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G).

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>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 ;
>107 DOPOF = $C0                       ;DIG HORIZ. POS.
>108 DIGPOF = $C1                       ;B0-B6 = IDX TO POSTBL.
>109 ;
>110 ;
>111 DODAT = $C3                       ;DIG DATA PTR.
>112 DIGDAT = $C4                       ;
>113 ;
>114 DIGDIR = $C6                       ;DIG CONTROL.
>115                                     ;B0-B1 = DIRECTION.
>116                                     ;B7 = DIGGING FLAG.
>117 DIGSPD = $C8                       ;DIG SPEED.
>118                                     ;(IDX TO SPDTBL)
>119                                     ;B0= UP SPEED.
>120                                     ;B1= DOWN SPEED.
>121                                     ;B2= LEFT SPEED.
>122                                     ;B3= RIGHT SPEED.
>123 ;
>124 DIGTIM = $CA                       ;DIG STAGE TIMER.
>125 DIGIQ = $CC                       ;DIG INTELLIGENCE.

```


AGAIN.

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>126                                     ;BO-B2=HOW MANY CELLS TO GO
>127                                     ;BEFORE TRYING NEW DIR.
>128 MUX      =      $CE                 ;NUM0 TO 2 FOR MUX MGR.
>129                                     ;
>130                                     ;
>131 *****
>132 *      APPLE  RAM      *
>133 *****
>134                                     ;8 BYTES ($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
>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
>189 TEMP4      =      $F2
>190 TEMP5      =      $F3

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>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 IDXs 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 XTRADO      =      $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
AM UP.
>267
>268 BOTTIM      =      $9F      ;BOTVI TIMER VALUE.
23 BOTVI       =      $202E
24 ORG         =      $2FFC
25
26 DA          =      $3000
27 DA          =      END

```



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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 F8 FF >17 LDA $FFF8
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 F8 FF >24 LDA $FFF8
>25

```



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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 *****
>43 * ANIMATION CHECKPOINT--> *
>44 *****
3021: A5 84 >44 LDA FRAMEL
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
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 B8 >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
3064: 29 03 >92 AND #3

```


3064:	27 03	>93	AND	#3	
3066:	D0 03	>94	BNE	ORK	
			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:	A8	>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 LODATA,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 FRAMEL
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 LODATA,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
30CC: 4A >175 LSR

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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 OF >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
 TAY ;GET BAND.
 ;AP BAND NUM.
 LDA LODATA,Y
 CMP #<NULL1
 BNE APR50 ;JP SOMETHING ELSE THERE.
 LDA APBAND,X
 AND #\$0F ;KP IMG IDX.
 ASL ;X 2.
 TAX
 LDA APIMG,X
 STA LODATA,Y
 ;SET PAGE PTR->
 LDA APIMG+1,X
 LDX BAND ;GET WHICH APPLE.
 LDA APOF,X
 TAX
 LDA POSTBL,X
 STA APOF,Y
 DEC BAND
 BPL APRAM


```

>200 * SET UP DIGGERS/BADGUYS-->
>201 *****
30F5: 20 8C 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 8C 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
>265 DIG33

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DIG33
3144: A2 01 >266 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 * BOTH DIGS MAY BE SHOWN IF NO APPLE COMPETITION->
>289 *****
>290 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'T 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

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>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,X
31D6: 85 F0 >371 STA TEMP2 ;SV BAND (LN)

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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 ;SET UP POS FOR DISPLAY.
31EE: B5 C1 >391 LDA DIGPOF,X
31FO: 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 * NEED TWO BANDS FOR OBJ-->
>404 *****
>405 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

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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
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>446 * APPLE IMAGE PTR TABLE->
>447 *****
>448 * BYTE 1=IMG ADR LD, 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 ;

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34 * TITLE SCREEN PAINTING FILE *
35 *****
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 08 >29 DFB $20,$10,$08,$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!
32A6: 85 ED >61 STA TEMP12
32A8: A9 BD >62 LDA #<NULLTB

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32A8: A9 BD >62 LDA #<NULLTB ; NULL
32AA: 85 EE >63 STA TEMP13
>64 ; ANIM8 MR DO IMG->
32AC: A0 66 >65 LDY #<MRDORR
32AE: A5 84 >66 LDA FRAMEL
32B0: 29 10 >67 AND ##10
32B2: D0 02 >68 BNE IMG5
32B4: A0 88 >69 LDY #<MRDOLR
>70 IMG5
32B6: 84 EA >71 STY TEMP14
32B8: A9 39 >72 LDA #>MRDOLL
32BA: 85 EB >73 STA TEMP15
32BC: 4C 03 33 >74 JMP TITLE9
>75
>76 * TITLE SCREEN
>77 *****
>78 TITLE1
32BF: A5 85 >79 LDA FRAMEH
32C1: 29 03 >80 AND #3
32C3: F0 03 >81 BEQ TITL11
32C5: 4C 8B 33 >82 JMP ORCHARD
>83
>84 * "GAME OVER" SCREEN->
>85 *****
>86 TITL11
32C8: A9 BD >87 LDA #<NULLTB ; NULL
32CA: A2 C3 >88 LDX #<GAMETB ; GAME
32CC: A0 C9 >89 LDY #<OVERTB ; OVER
>90
>91 * SET UP DANCE SPEED-->
>92 *****
>93 TITL12
32CE: 85 EC >94 STA TEMP11
32D0: 86 ED >95 STX TEMP12
32D2: 84 EE >96 STY TEMP13
32D4: A0 22 >97 LDY #<MRDOLL
32D6: A5 84 >98 LDA FRAMEL
32D8: A6 80 >99 LDX GAME
32DA: 3D 7B 32 >100 AND GAMSPD, X
32DD: D0 02 >101 BNE IMG6
32DF: A0 44 >102 LDY #<MRDORL
>103 IMG6
32E1: 84 EA >104 STY TEMP14
32E3: A9 39 >105 LDA #>MRDOLL
32E5: 85 EB >106 STA TEMP15
32E7: 4C 03 33 >107 JMP TITLE9
>108
>109 * "COLECO PRESENTS MR DO!" SCREEN->
>110 *****
>111 TITLE2
32EA: A9 AA >112 LDA #<COLECO ; COLECO
32EC: A2 B0 >113 LDX #<PRESNT ; PRESENTS
32EE: A0 B7 >114 LDY #<MRDOTB ; MRDO.
32F0: 4C CE 32 >115 JMP TITL12
>116 TITLE3
32F3: A9 BD >117 LDA #<NULLTB
32F5: 85 EC >118 STA TEMP11
32F7: 85 ED >119 STA TEMP12
32F9: 85 EE >120 STA TEMP13
32FB: A9 34 >121 LDA #<NULLB
32FD: 85 EA >122 STA TEMP14
32FF: A9 39 >123 LDA #>NULLB
3301: 85 EB >124 STA TEMP15 ; NO DO.

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>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 ;SET UP A DIGIT->
3348: A4 80 >182 LDY GAME ;GET NUM.
334A: B9 E9 38 >183 LDA SCORTB+1,Y
334D: 85 FB >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
3356: 20 8B 3F >191 JSR SCORE

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3358: 20 8B 3F >191 JSR SCORE
3359: A2 2D >193 LDX #45
335B: 85 02 >194 HOLD10
335D: CA >195 STA ATWAIT
335E: 10 FB >196 DEX
>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

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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 82 >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 82 >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 83 >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 83 >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 8B 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
33DC: A5 8B >62 LDA ALPHA ;GET ALE FLAGS

```



```

33DE: 85 EF >63
33E0: A9 3C >64
33E2: 95 F2 >65
33E4: CA >66
33E5: 06 EF >67
33E7: B9 CF 39 >68
33EA: 90 03 >69
33EC: B9 D5 39 >70
33EF: 95 F2 >71
33F1: CA >72
33F2: 88 >73
33F3: 10 EB >74
33F5: A9 02 >75
33F7: 85 02 >76
33F9: 85 1F >77
33FB: A9 FF >78
33FD: 85 0F >79
33FF: A9 96 >80
3401: 85 08 >81
3403: A9 1C >82
3405: 85 06 >83
3407: 85 07 >84
3409: A9 00 >85
340B: 85 02 >86
340D: 85 0F >87
340F: 20 AF 3F >88
3412: A9 FF >89
3414: 85 02 >90
3416: 85 0F >91
3418: A9 00 >92
341A: 85 1F >93
341C: A9 00 >94
341E: 85 25 >95
3420: 85 26 >96
3422: 85 04 >97
3424: 85 05 >98
3426: 85 02 >99
3428: A9 00 >100
342A: 85 08 >101
342C: A5 DA >102
342E: C9 10 >103
3430: D0 0E >104
3432: A5 BA >105
3434: 30 0A >106
3436: A4 BB >107
3438: B9 C2 35 >108
343B: A2 02 >109
343D: 20 D3 3C >110
343E: 85 08 >111
343F: 85 0F >112
3440: A9 00 >113
3442: 85 02 >114
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3468: 85 0F >133
346A: A9 00 >134
346C: 85 08 >135
346E: 85 0F >136
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347C: A9 00 >143
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34A2: 85 02 >162
34A4: 85 0F >163
34A6: A9 00 >164
34A8: 85 08 >165
34AA: 85 0F >166
34AC: A9 00 >167
34AE: 85 02 >168
34B0: 85 0F >169
34B2: A9 00 >170
34B4: 85 08 >171
34B6: 85 0F >172
34B8: A9 00 >173
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34BC: 85 0F >175
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34C0: 85 08 >177
34C2: 85 0F >178
34C4: A9 00 >179
34C6: 85 02 >180
34C8: 85 0F >181
34CA: A9 00 >182
34CC: 85 08 >183
34CE: 85 0F >184
34D0: A9 00 >185
34D2: 85 02 >186
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34D6: A9 00 >188
34D8: 85 08 >189
34DA: 85 0F >190
34DC: A9 00 >191
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34E0: 85 0F >193
34E2: A9 00 >194
34E4: 85 08 >195
34E6: 85 0F >196
34E8: A9 00 >197
34EA: 85 02 >198
34EC: 85 0F >199
34EE: A9 00 >200
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34F2: 85 0F >202
34F4: A9 00 >203
34F6: 85 02 >204
34F8: 85 0F >205
34FA: A9 00 >206
34FC: 85 08 >207
34FE: 85 0F >208
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35E8: 85 0F >325
35EA: A9 00 >326
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35EE: 85 0F >328
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373C: 85 08 >495
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37D0: A9 00 >569
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37D4: 85 0F >571
37D6: A9 00 >572
37D8: 85 08 >573
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37DC: A9 00 >575
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37E2: A9 00 >578
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37E6: 85 0F >580
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37EE: A9 00 >584
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38C4: 85 0F >691
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38CA: 85 0F >694
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38DE: A9 00 >704
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38E2: 85 0F >706
38E4: A9 00 >707
38E6: 85 02 >708
38E8: 85 0F >709
38EA: A9 00 >710
38EC: 85 08 >711
38EE: 85 0F >712
38F0: A9 00 >713
38F2: 85 02 >714
38F4: 85 0F >715
38F6: A9 00 >716
38F8: 85 08 >717
38FA: 85 0F >718
38FC: A9 00 >719
38FE: 85 02 >720
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3902: A9 00 >722
3904: 85 08 >723
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3908: A9 00 >725
390A: 85 02 >726
390C: 85 0F >727
390E: A9 00 >728
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3912: 85 0F >730
3914: A9 00 >731
3916: 85 02 >732
3918: 85 0F >733
391A: A9 00 >734
391C: 85 08 >735
391E: 85 0F >736
3920: A9 00 >737
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3924: 85 0F >739
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392A: 85 0F >742
392C: A9 00 >743
392E: 85 02 >744
3930: 85 0F >745
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3934: 85 08 >747
3936: 85 0F >748
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393C: 85 0F >751
393E: A9 00 >752
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3946: 85 02 >756
3948: 85 0F >757
394A: A9 00 >758
394C: 85 08 >759
394E: 85 0F >760
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3952: 85 02 >762
3954: 85 0F >763
3956: A9 00 >764
3958: 85 08 >765
395A: 85 0F >766
395C: A9 00 >767
395E: 85 02 >768
3960: 85 0F >769
3962: A9 00 >770
3964: 85 
```



```

>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 DOWTIME ;JP MR DO ON THIS FRAME.
3474: 4C A9 34 >180 JMP NODO ;MD NOT ON THIS FRAME.
>181 DOWTIME
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 DOWOFF ;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 DOWDAT
3494: 95 EF >201 STA LODATB,X ;SET UP DATA PTR HI BAND.
>202 ;
3496: CA >203 DEX
3497: A5 C3 >204 LDA DOWDAT ;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 DOWDAT ;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: E8 >233 INX
34C3: B9 43 34 >234 LDA TOPOFF,Y

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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 ; BORDER.
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 ; PAGE OF SB IMAGES.
3500:	85 F7	>274	STA HIDATB ; SET SB HI DATA PTR.
		>275	; ALL ON SAME PG FOR NOW.
3502:	85 2B	>276	STA ATREMV ; CLR INCR.
		>277	
		>278	*****
		>279	* GO PAINT ORCHARD + INVENTORY-->
		>280	*****
3504:	4C FE 3C	>281	JMP PAINT ; PAINT THE SCREEN.


```

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 89 >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 87 >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 89 >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 87 >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 89 >40 STX BDUR
3548: 30 02 >41 BMI MUS50
>42 MUS25
354A: C6 89 >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
356B: 29 3F >61 AND #$3F
356D: 85 88 >62 STA ADUR ;NEW DUR.

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356F: B9 D0 36 >63 LDA AMUSVT,Y ;NEW DUR.
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
360A: 94 75 65

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360A: 74 75 85
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
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.
>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 D8 30
371D: CC 0C >61 DFB $03,$D8,$30,$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 91 >79 DFB $93,$80,$8F,$80,$9A,$80,$93,$80,$8F,$80,$91
3738: 80 8F 80

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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		
37BE:	0C 8C	>112	DFB \$8C,\$0C,\$8C,\$0C,\$8C


```

37BE: 0C 8C >112 DFB $8C,$8C,$8C,$8C,$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
37D7: 8C 0C >122 DFB $06,$06,$06,$06,$06
37D9: 8C >123 DFB $06,$06,$06,$06,$06
37DA: FF >124 DFB $06
>125 DFB $FF ;END OF SONG.
>126 VOLTBL
37E7: 00 0A 0B >127 DFB 0,10,11,12
37EA: 0C >128 ;
>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 SNTDTBL
>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

```


381E: 4B 6C	>168	DFB	\$4B, \$8C
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: A8 B0      >29     DFB  <ZERO,<ONE,<TWO,<THREE,<FOUR
38ED: B8 C0 C8
38F0: D0 D8      >30     DFB  <FIVE,<SIX,<SEVEN,<EIGHT,<NINE

```



```

66 OBJ $B904
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
395E:	00 00 00			
3961:	00 00 00			
3964:	00 00	>51	DFB	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
3980:	00 00 00			
3983:	00 00 00			
3986:	00 00	>63	DFB	0,0,0,0,0,0,0,0
		>64	* MR DO LEFT FOOT DOWN, FACING RIGHT, EYES OPEN.	
		>65	MRDOLR	
3988:	00	>66	DFB	0
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
39A2:	00 00 00			
39A5:	00 00 00			
39AB:	00 00	>74	DFB	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 A8 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
>36 DFB <NULL,<REVE,<REVS
>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
39E9: 95 E2 >55 STA PD100K Y

```


39EB: CA >56
39EC: B1 EF >57
39EE: 95 F2 >58
39F0: CA >59
39F1: 88 >60
39F2: 10 F3 >61
39F4: 60 >62
>63
>64

STA PD100K,X
DEX
LDA (TEMP1),Y
STA PD100K,X
DEX
DEY
BPL SPR6
RTS


```

78          OBJ  $8A04
79          ORG  $3A00
80          *****
81          * SPRITE A IMAGES (PAGE 1) *
82          *****
83          PUT  MR.DO.SA  IMG1
>1          */MR.DO.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 GOVERNED 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
3A31: B1 B1 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			

3AA6:	00 00	>98	DFB	0,0,0,0,0
3AAB:	00 00 00			
3AAB:	00 00	>99	DFB	0,0,0,0,0
3AAD:	00 00 00			
3AB0:	00 00	>100	DFB	0,0,0,0,0
3AB2:	00 00	>101	DFB	0,0
		>102		; TEMP DIGGING IMG->
		>103		
		>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
3ACD:	00 00 00			
3AD0:	00 00 00			
3AD3:	00 00	>110	DFB	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
>8          * DIGGING FACING LEFT-->
>9          DUGRR
10          DFB 0,0
11          DFB $C2,$66,$FC,$FB,$AC
12          DFB $A6,$02,$0A,$0E,$AC
13          DFB $AC,$FB,$7B,$30,$00
14          DFB 0,0,0,0,0
15          DFB 0,0,0,0,0
16          DFB 0,0,0,0,0
17          DUGRL
18          DFB 0,0,0,0,0
19          DFB $38,$18,$18,$38,$7C
20          DFB $E6,$A6,$06,$A6,$FC
21          DFB $7C,$38
22          DFB 0,0,0,0,0
23          DFB 0,0,0,0,0
24          DFB 0,0,0,0,0
25          DFB 0,0
26          DFB 0,0,0,0,0
27          DFB 0,0,0,0,0
28          LETRE
29          DFB 0 ;LETTER E
30          DFB $C3,$66,$7E,$42,$81
31          DFB $BD,$B1,$B1,$BD,$B1
32          DFB $B1,$BD,$81,$42,$3C
33          DFB 0,0,0,0,0
34          DFB 0,0,0,0,0
35          DFB 0,0,0,0,0
36          DFB 0,0
37          LETRX
38          DFB 0 ;LETTER X
39          DFB $C3,$66,$7E,$42,$81

```


3B8E:	42 81	>37	DFB	\$C3, \$66, \$7E, \$42, \$81
3B70:	A5 A5 A5			
3B73:	99 99	>40	DFB	\$A5, \$A5, \$A5, \$99, \$99
3B75:	A5 A5 81			
3B78:	42 3C	>41	DFB	\$A5, \$A5, \$81, \$42, \$3C
3B7A:	00 00 00			
3B7D:	00 00	>42	DFB	0, 0, 0, 0, 0
3B7F:	00 00 00			
3B82:	00 00	>43	DFB	0, 0, 0, 0, 0
3B84:	00 00 00			
3B87:	00 00	>44	DFB	0, 0, 0, 0, 0
3B89:	00 00	>45	DFB	0, 0
		>46		
3B8B:	00	>47	DFB	0 ; LETTER T
3B8C:	C3 66 7E			
3B8F:	42 81	>48	DFB	\$C3, \$66, \$7E, \$42, \$81
3B91:	99 99 99			
3B94:	99 99	>49	DFB	\$99, \$99, \$99, \$99, \$99
3B96:	99 BD 81			
3B99:	42 3C	>50	DFB	\$99, \$BD, \$81, \$42, \$3C
3B9B:	00 00 00			
3B9E:	00 00	>51	DFB	0, 0, 0, 0, 0
3BA0:	00 00 00			
3BA3:	00 00	>52	DFB	0, 0, 0, 0, 0
3BA5:	00 00 00			
3BA8:	00 00	>53	DFB	0, 0, 0, 0, 0
3BAA:	00 00	>54	DFB	0, 0
		>55		
3BAC:	00	>56	DFB	0 ; LETTER R.
3BAD:	C3 66 7E			
3BB0:	42 81	>57	DFB	\$C3, \$66, \$7E, \$42, \$81
3BB2:	B5 B5 B9			
3BB5:	B5 B5	>58	DFB	\$B5, \$B5, \$B9, \$B5, \$B5
3BB7:	B5 B9 81			
3BBA:	42 3C	>59	DFB	\$B5, \$B9, \$81, \$42, \$3C
3BBC:	00 00 00			
3BBF:	00 00	>60	DFB	0, 0, 0, 0, 0
3BC1:	00 00 00			
3BC4:	00 00	>61	DFB	0, 0, 0, 0, 0
3BC6:	00 00 00			
3BC9:	00 00	>62	DFB	0, 0, 0, 0, 0
3BCB:	00 00	>63	DFB	0, 0
		>64		
3BCD:	00	>65	DFB	0 ; LETTER A
3BCE:	C3 66 7E			
3BD1:	42 81	>66	DFB	\$C3, \$66, \$7E, \$42, \$81
3BD3:	A5 A5 BD			
3BD6:	A5 A5	>67	DFB	\$A5, \$A5, \$BD, \$A5, \$A5
3BD8:	A5 99 81			
3BDB:	42 3C	>68	DFB	\$A5, \$99, \$81, \$42, \$3C
3BDD:	00 00 00			
3BE0:	00 00	>69	DFB	0, 0, 0, 0, 0
3BE2:	00 00 00			
3BE5:	00 00	>70	DFB	0, 0, 0, 0, 0
3BE7:	00 00 00			
3BEA:	00 00	>71	DFB	0, 0, 0, 0, 0
		>72		
3BEC:	00 00 00			
3BEF:	00 00	>73	DFB	0, 0, 0, 0, 0

LETRT

LETRR

LETRA


```

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
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: 84 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			
3CCE: 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     * POSITIONS FOR CHANNEL SELECT->
                  >104     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:  B5 02  >7     STA  ATWAIT
3D02:  B5 09  >8     STA  ATSCOL      ;COLOR SCREEN.
>9
3D04:  A2 07  >10    LDX  #7
3D06:  B6 DD  >11    STX  BAND      ;INIT BAND NUM FOR 8 BANDS.
3D08:  A5 BF  >12    LDA  FCOLOR
3D0A:  B5 08  >13    STA  ATFCOL
3D0C:  A9 10  >14    LDA  #$10      ;2X PWR BALL.
3D0E:  B8 04 00 >15    STA  ATACTL      ;CY 20.
>16                      ;PAINT ASYM FIELD-->
3D11:  B5 98  >17    LDA  FR1L,X
3D13:  B5 0E  >18    STA  ATFR1
3D15:  B5 A0  >19    LDA  FR2L,X
3D17:  B5 0F  >20    STA  ATFR2
3D19:  B5 B0  >21    LDA  FR1R,X
3D1B:  B5 0E  >22    STA  ATFR1
3D1D:  B5 AB  >23    LDA  FR2R,X
3D1F:  B5 0F  >24    STA  ATFR2      ;CY 48.
>25                      ;
>26                      ;KILL 19 CY BEFORE JMP->
3D21:  A0 03  >27    LDY  #3
>28    DLAY15
3D23:  B8      >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.
>50 LDA (BDAT),Y
>51 STA ATBDAT
>52 NOP ;CY 20.
>53 ;ASYM FIELD-->
3D3A: 85 98 >54 LDA FR1L,X
3D3C: 85 0E >55 STA ATFR1
3D3E: 85 A0 >56 LDA FR2L,X
3D40: 85 0F >57 STA ATFR2
3D42: 85 B0 >58 LDA FR1R,X
3D44: 85 0E >59 STA ATFR1
3D46: 85 A8 >60 LDA FR2R,X
3D48: 85 0F >61 STA ATFR2 ;CY 48.
>62 ;
3D4A: 85 F6 >63 LDA (BDAT),Y
3D4C: F0 28 >64 BEQ ASYMB ;JP SB DONE.
3D4E: 85 DE >65 LDA LODATA,X ;SET UP DATA PTRS FOR NEXT BAND.
3D50: 85 E5 >66 STA ADAT
3D52: 85 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

NPOSB2

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

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 LODATA,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 ASYMBV-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 LODATEB,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.

```



```

>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: 85 E5 >194 STA ADAT
3E02: B5 EF >195 LDA LODATB,X
3E04: 85 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 ;

```


>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 A8	>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).


```

>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 MISSILE BAND.
3E89: C4 B9 >287 CPY MISLN
3E8B: D0 04 >288 BNE NOMIS ;JP NOT MISSILE LINE.
3E8D: A9 02 >289 LDA #2
3E8F: 85 1D >290 STA ATENMA ;TURN MISSILE 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: 85 1B >299 STA ATADAT
3E98: B1 F6 >300 LDA (BDAT),Y
3E9A: 85 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: 85 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: 88 >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: 85 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 MISSLE OFF.
3EED: AE DD 00	>363	LDXH BAND	
3EF0: A9 00	>364	LDA #SCRCOL	
3EF2: 4C 6F 3E	>365	JMP SDAT1	;CY 76.
	>366		;


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NUBAND
3EF5: 85 2B >368 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 BF >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 0B >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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MA


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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
3F81: 4C 07 30 >471 JMP BVISW ;GO DO BOTVI.

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3F81: 4C 07 30 >41
>472 INVTBL
3F84: 00 80 81
3F87: 83 03 13
3F8A: 33 >473 DFB 0,\$80,\$81,\$83,\$03,\$13,\$33


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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
3FB8: 85 02 >6 STA ATWAIT
3FB8D: A2 00 >7 LDX #BLACK
3FB8F: 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 PIXELS 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 (PD100K),Y ;GET 100K DATA
3FBB: 85 1B >40 STA ATADAT ;WRITE TO OUTER BUFF (UNSEEN)
3FBD: 85 02 >41 STA ATWAIT
3FBE: 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 D8 >58 BPL SC4 ;LOOPTILL DONE
>59 *
>60 *RESET CONTROL AND DATA REGS
3FDF: A9 00 >61 LDA #0
3FE1: 85 1B >62 STA ATADAT
3FE3: 85 1C >63 STA ATBDAT

```


3FE1: 85 1B
3FE3: 85 1C
3FE5: 85 2B

>63
>64
>65
>66
>67

*
*

STA ATADAT
STA ATBDAT
STA ATREMV
STA ATASEL
STA ATBSEL
RTS

;SEL IMMED MODE.

3FE7: 60

3FFC: 0E 30

 111
 112
 113
 114 END

 OBJ \$9000
 ORG \$3FFC
 DA INITSW

--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	APQF	=\$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	ATFRO	=\$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	BTOFF	=\$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	CHRPOS	=\$3663	COLECO	=\$39AA	COMP1	=\$3191
COMP15	=\$319A	COMP2	=\$31A2	COMP3	=\$31B2	COMPET	=\$318C
CPETE	=\$31AF	CPETE2	=\$31B7	CYCL41	=\$3EBE	DATA1	=\$3890
DATA2	=\$3C00	? DEADSDN	=\$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	? DIGIQ	=\$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
INVTBL	=\$3FB4	? IOADIR	=\$0281	? IOBDIR	=\$0283	ISA	=\$3086
? JOYADN	=\$20	? JOYALT	=\$40	? JOYART	=\$80	? JOYAUP	=\$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	LETP0S	=\$3CEC
LETRA	=\$3BCD	LETRE	=\$3B49	LETRR	=\$3BAC	LETRT	=\$3B8B
LETRX	=\$3B6A	LETTBL	=\$39CF	? LETTRS	=\$3C00	L6	=\$3CC2
LL	=\$3C78	LM	=\$3C00	LN	=\$3CA0	LO	=\$3C80
L0DATA	=\$DE	L0DATB	=\$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	ORR	=\$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
REVX	=\$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	? ATFCTL	=\$0A	? LEFTI	=\$0C
ATFR0	=\$0D	ATFR1	=\$0E	WHITE	=\$0E	ATER2	=\$0F

ATSALE	=\$10	JOYAUP	=\$10	PLAY	=\$10	ATSLA	=\$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	BOTVI	=\$020E
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	ICHERY	=\$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	? DEADSN	=\$37EB	? BEEP	=\$37F3	? BOOP	=\$37F9
? BELL5	=\$37FF	? CHER1	=\$3807	? CHER2	=\$3814	? CHER3	=\$3821
? CHER4	=\$382E	? CHER5	=\$383B	? CHER6	=\$3848	DATA1	=\$3890
DIGITS	=\$3890	ZERO	=\$3890	ONE	=\$3898	TWO	=\$38A0

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