



00831 VCTQ0TR OFFENSIVE QUARTERBACK & THE FOOTBALL  
 00832 SPECIAL BITS: VBSTAT (5) - WE HAVE THE BALL  
 00833 (4) -  
 00834 (3) -  
 00835 (2) -  
 00836 (1) 0 - DO NOT CATCH BALL  
 00837 1 - CATCH BALL  
 00838 (0) -  
 00839  
 00840  
 00841  
 00842

VRXCHK (4) 0=QUARTERBACK  
 1=FOOTBALL

00843 VCTLIND1 OFFENSIVE LINEMAN 1 & PLAY SELECTION CURSOR  
 00844 IF CURSOR: VBYCHK (6) - CURSOR CYCLE COMPLETE  
 00845 (5) - CURSOR CYCLE ENABLE  
 00846  
 00847  
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 00878

VCTLIND2 . 2  
 VCTLIND3 . 3  
 VCTLIND4 . 4  
 VCTLIND5 . 5  
 VCTDQTR DEFENSIVE CENTER  
 VCTLIND1 DEFENSIVE LINEMAN 1  
 VCTLIND2 . 2  
 VCTLIND3 . 3  
 VCTLIND4 . 4  
 VCTLIND5 . 5

SPECIAL VECTOR BLOCK DEFINITION

THE VECTOR BLOCK HAS BEEN EXTENDED AS FOLLOWS:

+15	Low addr. of graphics pattern
+16	High addr. of graphics pattern
+17	Play pattern time base

00879 4E88 0013 VCTEND1 BLOCK VECTSZ  
 00880 4E98 0013 VCTEND2 BLOCK VECTSZ  
 00881 4EAE 0013 VCTEND3 BLOCK VECTSZ  
 00882 4EC1 0013 VCTEND4 BLOCK VECTSZ



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00921 2000 > ORG FIRSTC ; ESTABLISH CARTRIDGE ORIGIN
00922
00923
00924 2000 55 BYTE 'U' ; USER CARTRIDGE SENTINEL
00925
00926 LINKED MENU LIST
00927
00928 2001 1920A52D> WORD MENU2,L,2FLAYR,GAME1 ; 2-PLAYER
00929 2005 0121 >

;
;
; RESTART VECTORS
00930
00931
00932
00933 2007 C3832B > JF KST08 ; RST 08
00934 200A C3172B > JF RST10 ; RST 10
00935 200D C31C2B > JF RST18 ; RST 18
00936 2010 C31F2B > JF RST20 ; RST 20
00937 2013 C3222B > JF RST28 ; RST 28
00938 2016 C3272B > JF RST30 ; RST 30
00939

;
; MENU2
00940 2019 > EQU $
00941 2019 1802R52D> WORD MENU2,L,4PLAYR,GAME2 ; 4 PLAYER
00942 201D 0321 >

;
; L201F
00943 201F > EQU $
00944 201F 00 BYTE 0
00945

;
; INTERRUPT VECTOR TABLE
00946
00947
;
; INTTAB
00948 2020 > EQU $
00949 2020 F029 > WORD L29F0 ; INTERRUPT ROUTINE
00950 2022 D924 > WORD L24D9 ; INTERRUPT ROUTINE
00951

;
; L2024
00952 2024 > EQU $
00953 2024 DDE5 PUSH IX
00954

;
; SYSSUK
00955 2026 FF RST 38H ; BLOW REFEREE WHISTLE
00956 2027 13 RST 38H ; BLOW REFEREE WHISTLE
00957 2028 7FAE > RST 38H ; BLOW REFEREE WHISTLE
00958 202A FE WORD RMUSIC+1 ; MUSICWK
00959 202B F32F > RST 38H ; MUSICWK
00960 202D DDE1 > WORD 1111110B ; 3-VOICE A,B,C, & VIRRATO
00961 202F 212020 > RST 38H ; WHISTLE
00962 2032 7D LD HL,INTTAB ; WHISTLE
00963 2033 D30D LD A,L ; WHISTLE
00964 2035 21734E > OUT (INFRK),A ; WHISTLE
00965 2038 F9 LD HL,L4E73 ; WHISTLE
00966 2039 FB LD SP,HL ; WHISTLE
EI

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01013	2080	169B	LD	D,9BH
01014				
01015	2082	> L2082	LD	D,07H
01016	2082	3ARD4F	LD	A,(SCRIMLIN)
01017	2085	BA	CP	D
01018	2086	3836	JR	C,L208E
01019	2088	1832	JR	L208C
01020				
01021	208A	> L208A	LD	D,07H
01022	208A	1607	LD	D,07H
01023	208C	FE20	CP	20H
01024	208E	2804	JR	Z,L2094
01025	2090	302C	JR	NC,L208E
01026	2092	1625	LD	D,25H
01027				
01028	2094	> L2094	LD	D,07H
01029	2094	3ARD4F	LD	A,(SCRIMLIN)
01030	2097	BA	CP	D
01031	2098	3024	JR	NC,L208E
01032	209A	E5	PUSH	HL
01033	209B	CDA426	CALL	APPLAUSE ; START THE CROWD CHEERING
01034				
01035				
209E	FF		SYSSUK	STRDIS ; DISPLAY *SAFETY*
209F	35	+	RST	38H
01036	20A0	2828	BYTE	STRDIS+1
01037	20A2	44	BYTE	40,40 ; X,Y
01038	20A3	042D	WORD	44H ; #2, COLOR 1 ON 0
01039				L.SAFETY ; STRING
01040	20A5	E1	POP	HL
01041	20A6	CRDE	SET	3,(HL)
01042	20A8	OE02	LD	C,2 ; BUMP SCORE BY 2
01043	20AA	3E60	LD	A,60H
01044	20AC	32RR4F	LD	(L4FR),A
01045	20AF	D7	RST	010H
01046	20B0	2805	JR	Z,L20B7
01047	20B2	CD042B	CALL	SETOFFA
01048	20B5	1830	JR	L20E7
01049				
01050	20B7	> L20B7	LD	D,07H
01051	20B7	CD0D2B	CALL	SETOFFR
01052	20BA	181E	JR	L20DA
01053				
01054	20BC	> L20BC	LD	D,07H
01055	20BC	CRD6	SET	2,(HL)
01056				
01057	20BE	> L20BE	LD	D,07H
01058	20BE	D7	RST	010H
01059	20BF	200F	JR	NZ,L20D0
01060	20C1	F1	POP	AF
01061	20C2	2806	JR	Z,L20CA
01062	20C4	08	EX	AF,AF

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01063 20C5 C2D720 > JF NZ,L20D7
01064 20C8 181A JR L20E4
01065
01066 20CA > L20CA EQU $
01067 20CA 08 EX AF,AF
01068 20CB C40D2B > CALL NZ,SETOFFB
01069 20CE 1828 JR L20F8
01070
01071 20D0 > L20D0 EQU $
01072 20D0 F1 POP AF
01073 20D1 2821 JR Z,L20F4
01074 20D3 08 EX AF,AF
01075 20D4 C2E420 > JF NZ,L20E4
01076
01077 20D7 > L20D7 EQU $
01078 20D7 CD042B > CALL SETOFFA
01079
01080 20DA > L20DA EQU $
01081 20DA 3AC84F > LD A,(SCOREB) ; GET CURRENT SCORE
01082 20DD 81 ADD A,C ; AND # OF POINTS
01083 20DE 27 DAA ; MAKE IT DECIMAL
01084 20DF 32C84F > LD (SCOREB),A ; AND SAVE THE NEW SCORE
01085 20E2 180B JR L20EF
01086
01087 20E4 > L20E4 EQU $
01088 20E4 CD0D2B > CALL SETOFFB
01089
01090 20E7 > L20E7 EQU $
01091 20E7 3AC74F > LD A,(SCOREA) ; GET CURRENT SCORE
01092 20EA 81 ADD A,C ; AND # OF POINTS
01093 20EB 27 DAA ; MAKE IT DECIMAL
01094 20EC 32C74F > LD (SCOREA),A ; AND SAVE THE NEW SCORE
01095
01096 20EF > L20EF EQU $
01097 20EF CD0629 > CALL RDRIG
01098 20F2 1852 JR L2146
01099
01100 20F4 > L20F4 EQU $
01101 20F4 08 EX AF,AF
01102 20F5 C4042B > CALL NZ,SETOFFA
01103
01104 20F8 > L20F8 EQU $
01105 20F8 CD0629 > CALL RDRIG
01106 20FB CR56 BIT 2,(HL)
01107 20FD 2047 JR NZ,L2146
01108 20FF 1856 JR TIMECHK
  
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01110 ;
01111 ; 2-PLAYER ENTRY POINT
01112 ;
01113 > GAME1 EQU $ ; FLAG = 0
01114 2101 AF XOR A
01115 ;
01116 2102 21 BYTE 21H ; FAKE A *LD HL,NNNN* INSTRUCTION
01117 ;
01118 ;
01119 ; 4-PLAYER ENTRY POINT
01120 ;
01121 > GAME2 EQU $
01122 2103 3EFF LD A,-1 ; FLAG = -1
01123 2105 32814E > LD (NUMPLAYR),A ; SAVE THE NUMPLAYR FLAG
01124 2108 21734E > LD HL,L4E73
01125 2108 F9 LD SP,HL
01126 ;
01127 210C FF SYSSUK FILL ; CLEAR GAME RAM WORK AREA
RST 38H
01128 210E 824E > BYTE * FILL+1
WORD L4E82 ; START OF SCRATCH
01129 2110 4C01 WORD 332 ; LENGTH
01130 2112 00 BYTE 0 ; FILL CHAR.
01131 ;
01132 SYSSUK BMUSIC ; START THE NATIONAL ANTHEM
RST 38H
01133 2115 7F4E > BYTE BMUSIC+1
WORD MUSICWRK ; MUSIC STACK
01134 2117 FC BYTE 1111100B ; 3-VOICES (A,B,C)
01135 2118 422F > WORD ANTHEM ; SCORE
01136 ;
01137 ; HALFTIME EQU $
01138 211A > HL,L4FC0
01139 211A 21C04F > LD SETOFFA ; SET PLAYER A AS OFFENSE
01140 211D CD042B > CALL HL ; RUMP PTR. TO HALF COUNTER
01141 2120 2B HL (HL) ; INC. IT
01142 2121 34 LD A,(HL) ; NOW GET IT
01143 2122 7E CP 02H ; 2ND HALF?
01144 2123 FE02 JR NZ,L2130 ; NO, CONTINUE
01145 2125 2009 INC HL ; ELSE, RUMP TO FLAGS
01146 2127 23 CALL SETOFFB ; AND SET PLAYER B AS OFFENSE
01147 2128 CD0D2B > CALL APPLAUSE ; CHEER FOR THE HALF-TIME SHOW
01148 2128 CDA426 > CALL L2134 ; AND CONTINUE
01149 212E 1804 JR
01150 ;
01151 2130 > L2130 EQU $
01152 2130 35 DEC (HL) ; SEE IF 3RD HALF
01153 2131 302C JR NC,L215F ; YES, CONTINUE TO PUT UP SCOREBOARD
01154 2133 34 INC (HL) ; ELSE, RESET COUNTER
01155 ;
01156 2134 > L2134 EQU $
01157 2134 210004 LD HL,0400H ; GAME TIME (4:00 MINUTES)
    
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01158 2137 22ED4F > LD (GTSECS),HL ; SET UP HALF TIMER,HL
01159 213A 212020 > LD HL,INTTAB ; INTERRUPT TABLE
01160 213D 7C LD A,H
01161 213E ED47 LD I,A ; SET INTERRUPT RFG
01162 2140 7D LD A,L
01163 2141 D30D OUT (INFRK),A ; AND THE FEEDBACK REGISTER
01164 2143 ED5E IM 2
01165 2145 FR ; START THE ACTION
01166
01167 2146 > L2146 EQU $
01168 2146 218D4F > LD HL,SCRIMLIN ; HL--> LINE OF SCRIMMAGE X COORD.
01169 2149 3623 LD (HL),35 ; INIT. IT TO 35 (20 YARD LINE)
01170 214B 3AC04F > LD A,(L4FC0)
01171 214E CR5F BIT 3,A
01172 2150 2005 JR NZ,TIMECHK
01173 2152 3E90 LD A,144 ; 20 YARD LINE ON RIGHT SIDE
01174 2154 328R4F > LD (L4FRB),A
01175
01176 ; NOW, SEE IF THIS HALF IS OVER (TIME REMAINING)
01177
01178 > TIMECHK EQU $
01179 2157 21ED4F > LD HL,GTSECS ; HL--> TIME
01180 215A 7E LD A,(HL) ; GET MINUTES
01181 215B 23 INC HL
01182 215C 86 ADD A,(HL) ; AND SECONDS
01183 215D 288B JR Z,HALFTIME ; TIME OVER, START NEXT HALF
01184
01185 > L215F EQU $
01186 215F 0610 LD B,16 ; # OF VECTORS
01187 2161 11B74F > LD DE,VECTLINDS+18 ; LAST BYTE OF LAST VECTOR
01188
01189 > L2164 EQU $
01190 2164 C5 PUSH BC
01191 2165 21F42D > LD HL,VECTSKEL+18 ; HL--> END OF SKELETON VECTOR
01192 2168 011300 LD RC,VECTSZ
01193 216B EDB8 LDDR ; MOVE SKELETON VECTOR TO REAL VECTOR
01194 216D E5 PUSH HL
01195 216E 21C14F > LD HL,LSMAGIC ; HL--> MAGIC REG. FOR LINE OF SCRIMMAGE
01196 2171 13 INC DE ; BUMP TO MAGIC REG. (SHIFT VALUE???)
01197 2172 1A LD A,(DE) ; GET IT
01198 2173 B6 OR (HL) ; MASK IN THE MAGIC REG.
01199 2174 12 LD (DE),A ; AND PUT BACK IN THE VECTOR
01200 2175 1R DEC DE
01201 2176 E1 HL POP
01202 2177 C1 RC POP
01203 2178 10EA DJNZ L2164
01204
01205 217A 21D44E > LD HL,VECTO0TR8 ; STARTING VECTOR
01206 217D 227F4E > LD (MUSICWRK),HL
01207 2180 218G2E > LD HL,G.0TR06 ; HL--> STARTING FIGURE FOR QUARTERBACK
01208 2183 22C34F > LD (CUDOFAT),HL ; SAVE THE PUNTER
01209 2186 111300 LD DE,VECTSZ
    
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01210 2189 21894E > LD HL, VCTENDI+VBRSTAT ; HL--> S1STATUS (OFFENSIVE END 1)
01211 218C CRD6 SET 2,(HL)
01212 218E 19 ADD HL, DE ; BUMP TO NEXT END'S VECTOR
01213 218F CRD6 SET 2,(HL) ; AND HIM TOO!
01214 2191 19 ADD HL, DE ; DEFENSIVE END VECTOR NOW (BOTTOM)
01215 2192 3687 LD (HL), 87H
01216 2194 DD 21AE4E > IX, VCTEND3 ; IX--> DEF. BOTTOM END
01217 2198 DDCROC8E RES. VRCREV, (IX+VBYCHK) ; ENSURE REV. DELTA RESET
01218 219C 19 ADD HL, DE ; NOW TO TOP DEF. END
01219 219D 3687 LD (HL), 87H
01220 219F DD 19 ADD IX, DE ; BUMP TO TOP DEF. END
01221 21A1 DDCROC8E RES. VRCREV, (IX+VBYCHK) ; ENSURE NO DELTA REV.
01222 21A5 19 ADD HL, DE ; BUMP TO QTRBACK/FOOTBALL VECTOR.
01223 21A6 36A6 LD (HL), 0A6H ; SET ACTIVE, ...
01224 21A8 DD 19 ADD IX, DE ; IX TO QTRBACK VECTOR TOO.
01225 21AA DDCROC8E SET 7, (IX+VBYCHK)
01226 21AE 21934F > LD HL, VCLINIM+VBRSTAT ; HL--> STATUS BYTE
01227 21B1 CRD6 SET 2,(HL)
01228 21B3 21474F > LD HL, VCTQTR+VBRSTAT ; HL--> QTRBACK VECTOR STATUS
01229 21B6 0606 LD *R, 6 ; SET COUNTER TO CATCH HIM & 5 LINEMEN
01230
01231 21B8 > L21B8 EQU $
01232 21B8 CRD6 SET 0,(HL) ; DOES BIT 0 OF VBRSTAT =1 MEAN VECTOR IS OFFENSE?
01233 21BA 19 ADD HL, DE ; BUMP TO NEXT VECTOR
01234 21BB 10FB DJNZ L21B8 ; UNTIL ALL DONE
01235 21BD 3ABD4F > LD A, (SCRIMLIN) ; GET THE LINE OF SCRIMMAGE
01236 21C0 CD0A28 > CALL L280A ; CONVERT TO SCALED RCD VALUE
01237 21C3 32FC4F > LD (LINERALL), A ; AND SAVE IT!
01238 21C6 47 LD B, A
01239 21C7 21C04F > LD HL, L4FC0
01240 21CA AF XOR A
01241 21CB CB76 BIT 6,(HL)
01242 21CD 77 LD (HL), A
01243 21CE 2808 JR Z, L21D8
01244 21D0 90 SUR B
01245 21D1 27 DAA
01246 21D2 47 LD B, A
01247 21D3 32FC4F > LD (LINERALL), A
01248 21D6 180F JR L21E7
01249
01250 21D8 > L21D8 EQU $
01251 21D8 3ABE4F > LD A, (L4FRE)
01252 21DB 90 SUB B
01253 21DC F5 PUSH AF
01254 21DD 27 DAA
01255 21DE 32C94F > LD (YDSTOGO), A ; SAVE AS YARDS TO 1ST DOWN
01256 21E1 F1 POP AF
01257 21E2 2803 JR Z, L21E7
01258 21E4 F2F321 > LD P, L21F3
01259
01260 21E7 > L21E7 EQU $
01261 21E7 3E10 LD A, 10H ; SET YARDS FOR 1ST DOWN

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01262	21E9	32C94F	>	LD	(YDSTOGO),A	;	IN BUFFER
01263	21EC	80		ADD	A,B		
01264	21ED	32RE4F	>	LD	(L4FBE),A		
01265	21F0	AF		XOR	A		
01266	21F1	1803		JR	L21F6		
01267							
01268	21F3	L21F3	>	ERU	\$		
01269	21F3	3AC24F	>	LD	A,(DOWNNO)	;	GET DOWN
01270							
01271	21F6	L21F6	>	ERU	\$		
01272	21F6	3C		INC	A	;	INC. IT
01273	21F7	32C24F	>	LD	(DOWNNO),A		
01274	21FA	FE05		CP	S	;	5TH DOWN?
01275	21FC	300A		JR	NC,L2208	;	NO, SELECT PROPER PLAY GROUP
01276	21FE	3D		DEC	A	;	USE DOWN \$ AS INDEX
01277	21FF	213D2E	>	LD	HL,L2E3D	;	HL--> TABLE PLAY GROUP SELECTIONS
01278	2202	E7		RST	NDXW	;	INDEX WORD TABLE
01279	2203	EB		EX	DE,HL		
01280	2204	3AC94F	>	LD	A,(YDSTOGO)	;	GET YARDS TO GO FOR 1ST DOWN
01281	2207	E9		JF	(HL)	;	BRANCH TO PLAY SECTION
01282							
01283	2208	L2208	>	ERU	\$		
01284	2208	D7		RST	CMAG	;	GET LINE OF SCRIMMAGE MAGIC REG.
01285	2209	C21122	>	JF	NZ,L2211	;	PLAYER B HAS THE BALL, GIVE TO A
01286	220C	CD0D2B	>	CALL	SETOFFB	;	SET PLAYER B AS OFFENSE
01287	220F	1803		JR	L2214		
01288							
01289	2211	L2211	>	ERU	\$		
01290	2211	CD042B	>	CALL	SETOFFA	;	SET PLAYER A AS OFFENSE
01291							
01292	2214	L2214	>	ERU	\$		
01293	2214	C35F21	>	JF	L215F		
01294							
01295	2217	DOWN1	>	ERU	\$		
01296	2217	21892B	>	LD	HL,FGROUP1		
01297	221A	1819		JR	DOWN5		
01298							
01299	221C	DOWN2	>	ERU	\$		
01300	221C	219D2R	>	LD	HL,FGROUP2		
01301	221F	FE11		CP	11H		
01302	2221	3019		JR	NC,L223C		
01303	2223	21892B	>	LD	HL,FGROUP1		
01304	2226	180D		JR	DOWN5		
01305							
01306	2228	DOWN3	>	ERU	\$		
01307	2228	219D2B	>	LD	HL,FGROUP2		
01308	222B	1808		JR	DOWN5		
01309							
01310	222D	DOWN4	>	ERU	\$		
01311	222D	21C04F	>	LD	HL,L4FC0		
01312	2230	CREE		SET	S,(HL)		
01313	2232	219D2B	>	LD	HL,FGROUP2		



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01364 2288 328A4F > LD (SELPLAY),A
01365
01366
01367
01368
01369
01370
228B > SCOREBD EQU $
SYSSUK COLSET ; SET COLORS
RST 38H
228C 19 + COLSET+1
BYTE
228D 092E > COLIST6 ; COLOR LIST
WORD
01371
01372
01373
228F FF
2290 17 + SETOUT+1
BYTE
2291 B4 ; BOTTOM LINE NO. #2
BYTE
2292 EC ; FRAME COLOR, COLOR BOUNDARY
BYTE
2293 08 ; LINE INTERRUPTS ONLY
01377
01378
2294 FF
2295 1R + FILL ; BLANK SCREEN
BYTE
2296 0040 NORMEM ; START
WORD
2298 100E 90*BYTEFL ; LENGTH
WORD
229A FF 1111111R ; COLOR 3
BYTE
01379
01380
01381
01382
01383
01384
01385
01386
229E FF
229F 23 + WRITP ; DRAW PLAYER WITH BALL
BYTE
22A0 180F WRITP+1 ; ON THE LEFT
BYTE
22A2 20 ; X,Y
BYTE
22A3 B62E > G.QTR06 ; XUR
WORD
01387
01388
01389
01390
01391
01392
01393
01394
01395
22A7 > L22A7 JR L22AE ; SKIP OVER
EQU
SYSSUK WRITP ; DRAW PLAYER WITH BALL ON THE RIGHT
RST 38H
22A8 23 WRITP+1
BYTE
22A9 180F ; X,Y
BYTE
22AB 60 ; FLOP, XUR
BYTE
22AC 662E > G.QTR01 ; RIGHT PLAYER
WORD
01396
01397
01398
01399
01400
01401
01402
01403
01404
22AE > L22AE EQU $
LD IX,FNISML ; USE 3X5 CHARACTER SET
22B2 FF SYSTEM INTPC ; START INTERPRETING
RST 38H
  
```

01405	22B3 00	+	BYTE	INTFC	
01406					
01407	22B4 37	+	DO	DISNUM	SCORE A
01408	22B5 0E1C		BYTE	DISNUM+1	
01409	22B7 64		BYTE	14,28	X,Y
01410	22B8 82		BYTE	01100100R	XOR, COLOR 1 ON 0
01411	22B9 C74F	>	WORD	82H	2 DIGITS
01412			SCOREA	NUMBER	
01413	22BB 37	+	DO	DISNUM	SCORE R
01414	22BC 781C		BYTE	DISNUM+1	
01415	22BE 68		BYTE	120,28	X,Y
01416	22BF 82		BYTE	01101000R	XOR, COLOR 2 ON 0
01417	22C0 C84F	>	WORD	82H	2 DIGITS
01418			SCORER	NUMBER	
01419	22C2 37	+	DO	DISNUM	DISPLAY WHICH HALF
01420	22C3 341C		BYTE	DISNUM+1	
01421	22C5 64		BYTE	52,28	X,Y
01422	22C6 C2		BYTE	01100100R	XOR, COLOR 1 ON 0
01423	22C7 BF4F	>	WORD	0C2H	2 DIGITS
01424			HALF		
01425	22C9 53	+	DO	DISTIM	DISPLAY TIME
01426	22CA 3C0A		BYTE	DISTIM+1	
01427	22CC C7		BYTE	60,10	X,Y
01428			11000111B	MIN:SEC, *2, OR, COLOR 1 ON 3	
01429	22CD 35	+	DO	STRDIS	DISPLAY *TIME*
01430	22CE 4000		BYTE	STRDIS+1	
01431	22D0 26		BYTE	64,0	X,Y
01432	22D1 A02D	>	WORD	00100110F	XOR, COLOR 1 ON 2
01433			L.TIME	STRING	
01434	22D3 37	+	DO	DISNUM	DISPLAY DOWN LINE
01435	22D4 3030		BYTE	DISNUM+1	
01436	22D6 28		BYTE	48,48	X,Y
01437	22D7 82		BYTE	00101000R	XOR, COLOR 2 ON 0
01438	22D8 C24F	>	WORD	82H	2 DIGITS
01439			DOWNO		
01440	22DA 37	+	DO	DISNUM	DISPLAY YARDS TO GO
01441	22DB 1CA0		BYTE	DISNUM+1	
01442	22DD 28		BYTE	28,64	X,Y
01443	22DE 82		BYTE	00101000R	XOR, COLOR 2 ON 0
01444	22DF C94F	>	WORD	82H	2 DIGITS
01445			YDSTOGO		
01446	22E1 35	+	DO	STRDIS	DISPLAY *DOWN*
01447	22E2 4430		BYTE	STRDIS+1	
01448	22E4 24		BYTE	68,48	X,Y
01449			00100100R	XOR, COLOR 1 ON 0	

01448	22E5 D12D	>	WORD	L.DOWN	STRING	
01449						
01450	22E7 37	+	DISNUM	DISPLAY THE BALL YARD LINE		
01451	22E8 650		DISNUM+1			
01452	22EA 28		BYTE	102,80	X,Y	
01453	22EB 82		BYTE	00101000B	XOR, COLOR 2 ON 0	
01454	22EC BC4F	>	BYTE	82H	2 DIGITS	
01455			WORD	LINERALL		
01456						
01457	22EE 35	+	STRDIS	DISPLAY YARDS TO GO*		
01458	22EF 3040		STRDIS+1			
01459	22F1 24		BYTE	48,64	X,Y	
01460	22F2 C52D	>	WORD	00100100B	XOR, COLOR 1 ON 0	
01461				L.YARDGO	STRING	
01462	22F4 35	+	STRDIS	DISPLAY BALL ON*		
01463	22F5 2A50		STRDIS+1			
01464	22F7 24		BYTE	42,80	X,Y	
01465	22F8 DA2D	>	WORD	00100100B	XOR, COLOR 1 ON 0	
01466				L.BALLON	STRING	
01467	22FA 02	+	DONT	XINTC	STOP INTERPRETING	
01468	22FB 21ED4F	>	LD	XINTC		
01469	22FE 7E		LD	HL,GTSECS	GET GAME TIME	
01470	22FF 23		INC	A,(HL)	MINUTES	
01471	2300 86		ADD	HL		
01472	2301 200C		JR	A,(HL)	AND SECONDS TO SEE IF GAME OVER	
01473	2303 CDA426	>	CALL	NZ,L230F	NO, CONTINUE	
01474				APPLAUSE		
01475	2306 FF		SYSSUK	SIRDIS	DISPLAY END*	
01476	2307 35	+	RST	38H		
01477	2308 382B		BYTE	STRDIS+1		
01478	230A 47		BYTE	56,43	X,Y	
01479	230B D62D	>	WORD	01000111B	*, OR, COLOR 1 ON 3	
01480	230D	>	EQU	L.END	STRING	
01481	230D 18FE		JR	\$	HANG	HANG UP SO EVERYONE CAN SEE THE FINAL SCORE
01482						
01483	230F	>	EQU	\$		
01484	230F CDD629	>	CALL	RDRTRIG	HANG ON SCOREBOARD UNTIL TRIGGER FILLED.	
01485						
01486	2312 FF		SYSSUK	FILL	BLANK THE SCREEN	
01487	2313 1B	+	RST	38H		
01488	2314 0040		WORD	FILL+1		
01489	2316 100E		WORD	NORMEM		
01490	2318 FF		BYTE	90*BYTEPL	LENGTH	
01491				11111111B	COLOR 3	
			SYSSUK	SIRDIS	DISPLAY PLAYS*	

```

2319 FF          RST          38H
231A 35          +          STRDIS+1
01492 231R 3A05  BYTE          58,5
01493 231D 28    BYTE          00101000B ; XOR, COLOR 2 ON 0
01494 231E 0R2D >    WORD          L,PLAYS ; STRING
01495
01496 2320 012405 LD          RC,0524H ; D=5, C=24H (STRING PARAMETERS)
01497 2323 110C10 LD          DE,16*256+12 ; X=12, Y=16
01498
01499          > L2326 EQU          $
01500 2326 3AC04F > LD          A,(L4FC0)
01501 2329 CR6F   > BIT          5,A
01502 232R 281D   JR          Z,L234A
01503 232D 21R2D > LD          HL,L,PUNT ; HL--> *PUNT.
01504 2330 CR67   BIT          4,A
01505 2332 2803   JR          Z,L2337
01506 2334 216A2D > LD          HL,L,SCREEN ; HL--> *SCREEN PASS*
01507
01508          > L2337 EQU          $
01509 2337 05      DEC          ; # OF LINES TO DISPLAY -1
01510 2338 CR7F   BIT          7,A
01511 233A 2007   JR          NZ,L2343
01512 233C E5     PUSH         HL
01513 233D 21R84F > LD          HL,CRNTGFRF ; GET CURRENT PLAY GROUP
01514 2340 34     INC          (HL) ; BUMP FAST 1ST PLAY
01515 2341 34     INC          (HL) ; OF THAT GROUP
01516 2342 E1     POP          HL
01517
01518          > L2343 EQU          $
01519 2343 110C1A LD          DE,26*256+12 ; X=12, Y=26
01520          RST          STRDIS ; DISPLAY A STRING
01521          +          38H
01522 2348 1E0C   LD          E,12 ; RESET X COORD. TO 12
01523
01524          > L234A EQU          $
01525 234A D5     FUSH         DE
01526 234R AF     XOR          A ; ZERO INDEX
01527
01528          > L234C EQU          $
01529 234C 2AB8AF > LD          HL,(CRNTGFRF) ; HL--> CURRENT PLAY GROUP TABLE
01530 234F E7     RST          NDXM ; INDEX WORD TABLE
01531 2350 ER     EX          DE,HL ; PUT ENTRY IN HL
01532 2351 D1     POP          DE ; RESTORE HORIZONTAL LINE POSITION
01533 2352 08     EX          AF,AF
01534 2353 3E0A   LD          A,10 ; INCREMENT VALUE (TO NEXT LINE)
01535 2355 82     ADD          A,D ; ADD TO CURRENT Y CUORD.
01536 2356 57     LD          D,A ; BACK TO D
01537 2357 D5     PUSH         DE ; SAVE POS.
01538 2358 08     EX          AF,AF
01539

```

01540	2359 FF	SYSTEM	STRDIS	; DISPLAY A STRING (HL--> STRING, DE=X,Y)
	235A 34	RST	38H	
		BYTE	STRDIS	
01541		INC	A	; BUMP INDEX
01542	235B 3C	DJNZ	L234C	; AND OUTPUT REMAINING PLAYS
01543	235C 10EE	POP	HL,L4FCO	
01544	235E D1	LD	7,(HL)	
01545	235F 21C04F	SET	A	; SET CURSOR HOK. POSITION
01546	2362 CRFE	XOR	(VCTLIN01+VBYL),A	
01547	2364 AF	LD	B:A	
01548	2365 32F14E	LD	B:A	
01549	2368 AF	EXX		
01550	2369 47	LD	HL,NORMEM+33*BYTEPL	; START ON LINE 33
01551	236A D9	LD	(CURSRPOS),HL	; SAVE AS CURRENT CURSOR POS.
01552	236B 212845	LD	HL,VCTLIN01+VBYPCHK	; HL--> CHECKS FLAG
01553	236E 22CA4F	LD	6,(HL)	; ENSURE PLAY CYCLE COMPLETE FLAG RESET
01554	2371 21F34E	LD		
01555	2374 CBB6	RES		
01556				
01557	2376 FF	SYSSUK	RECTAN	; DRAW THE *CURSOR*
	2377 1D	RST	38H	
		BYTE	RECTAN+1	
01558	2378 021A	BYTE	2:26	; X,Y
01559	237A 0606,	BYTE	6:6	; 6 * 6 PIXELS
01560	237C 55	BYTE	01010101R	; COLOR PATTERN
01561		SET	5,(HL)	; OK, TURN ON THE CURSOR MOVEMENT FLAG
01562	237D CREE			
01563				
01564	237F	EQU	\$	
01565	237F CR76	BIT	6,(HL)	; SEE IF CURSOR CYCLE COMPLETE
01566	2381 28FC	JR	Z,L237F	; NO, LOOP UNTIL COMPLETE
01567	2383 CB8E	RES	5,(HL)	; TURN OFF THE CURSOR MOVEMENT FLAG
01568	2385 3ABA4F	LD	A,(SELPLAY)	; GET THE SELECTED PLAY
01569	2388 A7	AND	A	; SEE IF ANY PLAY SELECTED
01570	2389 CABR22	JP	Z,SCOREERRD	; NO, PUT UP THE SCOREBOARD AGAIN
01571				
01572	238C FE04	CF	4	
01573	238E F5	PUSH	AF	; SAVE FLAGS
01574	238F 21C04F	LD	HL,L4FCO	
01575	2392 CR6E	BIT	5,(HL)	
01576	2394 2AB84F	LD	HL,(CNNTFGRF)	; HL--> CURRENT PLAY GROUP
01577	2397 2817	JR	Z,L2380	; NOT SPECIAL PLAY
01578	2399 2B	DEC	HL	
01579	239A 2B	DEC	HL	
01580	239B FE01	CF	1	
01581	239D 2011	JR	NZ,L2380	
01582	239F 21C52B	LD	HL,PLAYTAB	; HL--> TABLE OF PLAY PATTERNS
01583	23A2 3AC04F	LD	A,(L4FCO)	
01584	23A5 CR67	BIT	A:A	
01585	23A7 200E	JR	NZ,L2387	
01586	23A9 E5	PUSH	HL	
01587	23AA CF	RST	GORF	; SET THE QTRBACK/FOOTBALL VECTOR TO THE BALL

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01588 23AB CRFE      SET 7,(HL) ; SET 'BALL' FLAG IN VRXCHK
01589 23AD E1        POP HL ; RESTORE HL
01590 23AE 1807      JR L23B7
01591
01592 23B0 > L23B0 EQU $
01593 23B0 3D        DEC A
01594 23B1 010A00   LD RC,10 ; OFFSET TO PLAY TABLE POINTERS
01595 23B4 09        AND HL,RC ; HL--> CURRENT PLAY GROUP PLAY PATTERN POINTERS
01596 23B5 E7        RST NDXW ; INDEX WORD TABLE
01597 23B6 EB        EX DE,HL ; PUT PLAY PATTERN POINTER IN HL
01598
01599 23B7 > L23B7 EQU $
01600 23B7 11052C > LD DE,POSTAB1 ; NORMAL END POSITION TABLE
01601 23BA E5        LD HL ; SAVE PLAY PTR.
01602 23BB 3E10     LD A,16 ; # OF TABLE ENTRIES (# VECTORS)
01603 23BD 218D4E > LD HL,UCTEND1+VRXL ; HL--> X COORDINATE
01604 23C0 CD927 > CALL INITVECT ; INIT. VECTORS WITH POSITIONS FROM TABLE
01605 23C3 E1        POP HL ; RESTORE PTR.
01606 23C4 11974E > LD DE,UCTEND1+15 ; DE--> OFFENSIVE ENDS (2 VECTORS)
01607 23C7 3E02     LD A,2 ; 2 VECTORS
01608 23C9 CD9527 > CALL INITPLAY ; INIT. THE ENDS WITH THEIR PATTERN POINTERS
01609 23CC F1        POP AF
01610 23CD 3005     JR NC,FLANKERS
01611 23CF 21E12B > LD HL,OFFPAT1 ; HL--> OFFENSIVE PATTERN 1 TABLE
01612 23D2 180E     JR L23E2
01613
01614
01615 ; FLANKERS -- REPOSITIONS THE OFFENSIVE ENDS AS FLANKERS
01616 23D4 > FLANKERS EQU $
01617 23D4 3E02     LD A,2 ; 2 VECTORS
01618 23D6 11452C > LD DE,POSTAB1 ; FLANKER POSITION TABLE
01619 23D9 218D4E > LD HL,UCTEND1+VRXL ; HL--> X COORD.
01620 23DC CD927 > CALL INITVECT ; POSITION OFFENSIVE ENDS FLANKERS
01621 23DF 21ED28 > LD HL,OFFPAT2
01622
01623 23E2 > L23E2 EQU $
01624 23E2 11E34E > LD DE,UCTO0TRR+15
01625 23E5 3E06     LD A,6 ; 6 VECTORS FOR OFFENSE
01626 23E7 CD9527 > CALL INITPLAY ; SET THEM UP WITH THEIR PLAY PATTERNS
01627 23EA 3E06     LD A,6 ; 6 FOR DEFENSE
01628 23EC 21F928 > LD HL,DEFNSPAT ; HL--> DEFENSIVE PLAY PATTERN TABLE
01629 23EF CD9527 > CALL INITPLAY ; SET UP DEFENSIVE SIDE TOO
01630 23F2 2ACC4F > LD HL,(YDTABPTR) ; HL--> YARD TABLE PTR (SCALED FOR SCREEN)
01631 23F5 CD6B28 > CALL DRWFIELD ; DRAW THE PLAY FIELD
01632 23F8 CDC224 > CALL DRWTEAM ; DRAW THE MEN ON THE FIELD
01633 23FB CDA324 > CALL DRWSBALL ; DRAW THE BALL (IN START POSITION)
01634
01635 ; RANDOM SONG SELECTION FOR SOME VARIETY
01636
01637 23FE 217F2F > LD HL,CHANT ; DEFAULT SCORE FOR CHANT
01638
01639 SYSSUK RANGED ; GET A RANDOM #
    
```

```

2401 FF RST 38H
2402 77 BYTE RANGED+1
2403 00 BYTE 0 ; ACCEPT ANY
01640 01641 ;
01642 2404 CB47 BIT 0,A ; SEE WHICH CHEER TO USE
01643 2406 2803 JR Z,L240R
01644 2408 21C12F > LD HL,VICTORY ; OTHERWISE, USE THE SONG
01645 ;
01646 240R EQU $
01647 240B 3E0C LD A,00001100R ; 3-VOICE (LOAD C ONLY, INC PC)
01648 240D DD217FAE> LD IX,MUSICWRK
01649 ;
01650 SYSTEM RMUSIC ; PLAY EITHER THE SONG OR CHANT
2411 FF RST 38H
2412 12 BYTE RMUSIC
01651 ;
01652 2413 3ABE4F > LD A,(L4FRE)
01653 2416 CDD727 > CALL L27D7
01654 2419 1604 LD D,04H
01655 241B 5F LD E,A
01656 241C D7 RST CMAG ; GET LINE OF SCRIMMAGE MAGIC REG.
01657 241D 2804 JR Z,L2423
01658 241F 3ERD LD A,0EDH
01659 2421 93 SUR E
01660 2422 5F LD E,A
01661 ;
01662 2423 EQU $
01663 2423 CDB224 > CALL DRWDOWNH ; DRAW A DOWN MARKER
01664 2426 78 LD A,E
01665 2427 DE1D SRC A,29 ; 29 PIXELS DOWN
01666 2429 5F LD E,A
01667 242A CDB224 > CALL DRWDOWNH ; DRAW A DOWN MARKER
01668 ;
01669 242D EQU $
01670 242D D7 RST CMAG ; GET LINE OF SCRIMMAGE MAGIC REG.
01671 242E DB10 IN A,(SMO) ; HAND CONTROLLER 0
01672 2430 2802 JR Z,L2434
01673 2432 DB11 IN A,(SW1) ; HAND CONTROLLER 1
01674 ;
01675 2434 EQU $
01676 2434 E60F AND OFH
01677 2436 28F5 JR Z,L242D
01678 2438 AF XOR A
01679 2439 CF RST QORF ; SET HL--> BALL VECTOR
01680 243A CDA324 > CALL DRWSBALL ; DRAW THE BALL
01681 243D 3EBC LD A,7082 ; NEW LINE INTERRUPT VALUE
01682 243F D30F DUT ,(INLIN),A
01683 2441 AF XOR A
01684 2442 32B24E > LD A,(L4E82),A
01685 2445 3E50 LD A,80
01686 2447 CF RST QORF
01687 2448 2006 JR NZ,L2450
  
```

```

01688
01689          SYSSUK          RANGED          GET RANDOM #
          244A FF          RST          38H
          244B 77          RST          RANGED+1
          01690          RST          32          RANGE
          01691          RST          32          RANGE
          01692          RLCA
          01693          ADD          A,32
          01694
          01695          EQU          $
          01696          LD          (C17),A
          01697          RST          NUMP          GET # OF PLAYERS (2 OR 4)
          01698          JR          Z,L2458
          01699          LD          HL,VC Tend2+VBSTAT
          01700          SET          1,(HL)
          01701
          01702          EQU          $
          01703          DI
          01704          LD          HL,INTTAB+2
          01705          LD          *A,HL
          01706          OUT          (INFRK),A
          01707          RST          00RF          IS VECTOR QUARTERBACK OR FOOTBALL?
          01708          JR          Z,L2480
          01709          LD          R,16          16 VECTORS
          01710          LD          HL,VC Tend1+VBSTAT
          01711          LD          DE,VECTSZ
          01712
          01713          EQU          $
          01714          RES          VBSACT,(HL)          RESET VECTOR ACTIVE STATUS
          01715          ADD          HL,DE          RUMP TO NEXT VECTOR
          01716          DJNZ          L246D
          01717          LD          HL,VC T00TRB+VBSTAT          HL--> STATUS
          01718          SET          VBSACT,(HL)          ACTIVATE THE BALL
          01719          LD          HL,PLAYFUNT          HL--> PUNT PATTERN
          01720          LD          (VC T00TRB+15),HL          MAKE IT THE CURRENT PLAY PATTERN
          01721          CALL          DOTRIGS
          01722
          01723          EQU          $
          01724          SYSSUK          FILL
          2480 FF          RST          38H
          2481 1B          RST          FILL+1
          01725          WORD          OSWO          ZERO THE POT TRACKING BYTES
          01726          WORD          4          LENGTH
          01727          WORD          0          FILL CHAR.
          01728
          01729          RST          CHAG          GET LINE OF SCRIMMAGE MAGIC REG.
          01730          IN          A,(POT0)
          01731          JR          Z,L248F
          01732          IN          A,(POT1)
          01733          CPL
          01734
          01735          EQU          $
          248F          >          L248F
  
```

```

01736 248F E6E0 AND OE0H
01737 2491 21C64F > LD HL,L4FC6
01738 2494 77 LD (HL),A
01739 2495 2B DEC HL
01740 2496 3602 LD (HL),02H
01741 2498 FB EI
01742
01743 ; PLAYLOOP -- HERE IS THE MAIN PLAYER TRANSITION LOOP
01744 ;
01745 > PLAYLOOP EQU $
01746 SYSSUK SENTRY ; SENSE PLAYER INPUT
2499 FF RST 38H
249A 43 SENTRY+1
249B 1402 WORD ALKEYS ; CALC. KEYFAD MASK
;
249D FF SYSSUK DOIT ; DO IT!!!
249E 45 RST 38H
249F 262F + BYTE DOIT+1
01750 > WORD DOTABLE ; TRANSITION TABLE
01751 ;
01752 24A1 18F6 JR PLAYLOOP
  
```

```

01754 ;
01755 ; DRWSBALL -- DRAWS THE BALL IN THE INITIAL STAKT FUSITION
01756 ;
01757 ; DRAWS THE BALL ON PIXEL LINE 47 ON THE CURRENT LINE OF SCRIMMAGE
01758 ;
01759 > DRWSBALL EQU $
01760 24A3 3ABDAF > LD A,(SCRIMLIN) ; GET THE CURRENT LINE OF SCRIMMAGE (X COORD.)
01761 24A6 5F LD E,A ; X COORDINATE
01762 24A7 162F LD D,47 ; Y COORDINATE
01763 24A9 D7 RST CMAG ; GET LINE OF SCRIMMAGE MAGIC REG.
01764 24AA F620 OR 20H
01765 24AC 21AD2C > LD HL,G.FTBALL ; HL--> FOOTBALL PATTERN
01766 ;
01767 SYSTEM WRITP ; WRITE PATTERN WITH SIZE LOOKUP
24AF FF RST 38H
24B0 22 + BYTE WRITP
24B1 C9 RET
  
```

```

01770 ;
01771 ; DRWDOWNM -- DRAWS A DOWN MARKER ON THE SIDE LINE
01772 ;
01773 ; UFON ENTRANCE: D,E = Y,X COORDINATE FOR A MARKER
01774 ;
01775 > DRWDOWNM EQU $
01776 24B2 7B LD A,E ; CHECK X COORD.
01777 24B3 FE9F CP 159 ; FOR OUT OF SCREEN ROUNDS
  
```

```

01778 24B5 D0          RET          NC          ; TOO FAR, DO NOT DRAW IT
01779 24B6 010204     LD           BC,0402H    ; 2 WIDE x 4 HIGH SIZE
01780 24B9 AF         XOR          A          ; COLOR MASK
01781 24BA DF         RST          FBOX     ; PAINT A BOX
01782                ;
01783 24BB 010402     LD           RC,0204H    ; 4 WIDE x 2 HIGH SIZE NOW
01784 24BE AF         XOR          A          ; COLOR MASK
01785 24BF 1D        DEC          E          ; ONE PIXEL BACKWARDS
01786 24C0 DF         RST          FBOX     ; PAINT A BOX
01787 24C1 C9        RET
    
```

```

01789                ;
01790                ; DRWTEAM -- DRAWS THE TEAM ON THE PLAY FIELD
01791                ;
01792                ;
01793 24C2 >          DRWTEAM EQU     $
01794 24C6 0610     LD           IX,VCTEND1    ; START OF VECTORS
01795                ;
01796                ;
01797 24C8 DDC8017E   LD           B,16         ; FOR ALL OF THEM
01798 24CC 2806     JR           Z,DRWTEAM1    ; CHECK ACTIVE BIT
01799 24CE CD7827   CALL          DRWVECT     ; NOT ACTIVE, SKIP TO NEXT VECTOR
01800 24D1 111300   LD           DE,VECTS2    ; DRAW A VECTOR PATTERN
01801                ;
01802                ;
01803 24D4 DD19     ADD          IX,DE        ; BUMP TO NEXT VECTOR
01804 24D6 10F0     DJNZ         DRWTEAM0     ; AND LOOP
01805 24D8 C9        RET
    
```

```

01807 ;
01808 ; INTERRUPT PROCESSOR
01809 ;
01810 > L24D9 EQU $
01811 24D9 F5 PUSH AF
01812 24DA C5 PUSH BC
01813 24DB D5 PUSH DE
01814 24DC E5 PUSH HL
01815 24DD DDES PUSH IX
01816 24DF FDES PUSH IY
01817 24E1 0603 LD R:3 ; 3 VECTORS
01818 ;
01819 > L24E3 EQU $
01820 24E3 21874E > HL,CURVECT ; HL--> CURRENT VECTOR PUNTER (1-BYTE INDEX)
01821 24E6 C5 RC
01822 24E7 35 (HL) ; DECREMENT INDEX
01823 24E8 F2ED24 > P,L24ED ; NOT ALL YET
01824 24ER 3615 LD (HL),21 ; RESET # OF VECTOR POINTERS
01825 ;
01826 > L24ED EQU $
01827 24ED 4E LD C,(HL) ; GET CURRENT INDEX
01828 24EE 21112E > HL,VECTAB1 ; HL--> START OF VECTOR POINTERS TABLE
01829 24F1 0600 LD R:00H
01830 24F3 09 ADD HL,RC
01831 24F4 09 ADD HL,RC
01832 24F5 7E LD A,(HL) ; OFFSET * 2
01833 24F6 23 INC HL ; PICK UP LOW ADDR.
01834 24F7 66 LD H,(HL) ; BUMP TO
01835 24F8 6F LD L,A ; GET HIGH ADDR
01836 24F9 E5 LD HL ; HL--> A VECTOR
01837 24FA DDE1 INC HL ; PUT IT
01838 24FC 23 INC IX ; IN THE IX
01839 24FD CR7E BIT URSACT,(HL) ; BUMP TO STATUS OF A VECTOR
01840 24FF C41525 > NZ,L2515 ; IS IT ACTIVE?
01841 2502 C1 RC ; YES, ANIMATE IT
01842 2503 10DE DJNZ L24E3 ; RESTORE COUNTER
01843 ;
01844 > SYSSUK DECTS ; DECREMENT CUSTOM TIMERS
01845 2505 FF RST 38H
01846 2506 11 + RYTE DECTS+1
01847 2507 C0 RYTE 11000000H ; C17, C16
01848 ;
01849 > STIMER ; AND SERVICE SYSTEM TIMERS
01850 2508 CR0002 CALL IY
01851 2509 FDE1 POP IX
01852 250A DDE1 POP HL
01853 250B E1 POP DE
01854 250C D1 POP BC
01855 250D C1 POP AF
01856 250E F1 POP EI
01857 250F FB EI
01858 2510 C9 RET
01859 2511 C9 RET
01860 2512 C9 RET
01861 2513 FB EI
01862 2514 C9 RET
01863 2515 C9 RET
01864 2516 C9 RET
01865 2517 FB EI
01866 2518 C9 RET
01867 2519 C9 RET
01868 2520 FB EI
01869 2521 C9 RET
01870 2522 C9 RET
01871 2523 FB EI
01872 2524 C9 RET
01873 2525 C9 RET
01874 2526 FB EI
01875 2527 C9 RET
01876 2528 C9 RET
01877 2529 FB EI
01878 2530 C9 RET
01879 2531 C9 RET
01880 2532 FB EI
01881 2533 C9 RET
01882 2534 C9 RET
01883 2535 FB EI
01884 2536 C9 RET
01885 2537 C9 RET
01886 2538 FB EI
01887 2539 C9 RET
01888 2540 C9 RET
01889 2541 FB EI
01890 2542 C9 RET
01891 2543 C9 RET
01892 2544 FB EI
01893 2545 C9 RET
01894 2546 C9 RET
01895 2547 FB EI
01896 2548 C9 RET
01897 2549 C9 RET
01898 2550 FB EI
01899 2551 C9 RET
01900 2552 C9 RET
01901 2553 FB EI
01902 2554 C9 RET
01903 2555 C9 RET
01904 2556 FB EI
01905 2557 C9 RET
01906 2558 C9 RET
01907 2559 FB EI
01908 2560 C9 RET
01909 2561 C9 RET
01910 2562 FB EI
01911 2563 C9 RET
01912 2564 C9 RET
01913 2565 FB EI
01914 2566 C9 RET
01915 2567 C9 RET
01916 2568 FB EI
01917 2569 C9 RET
01918 2570 C9 RET
01919 2571 FB EI
01920 2572 C9 RET
01921 2573 C9 RET
01922 2574 FB EI
01923 2575 C9 RET
01924 2576 C9 RET
01925 2577 FB EI
01926 2578 C9 RET
01927 2579 C9 RET
01928 2580 FB EI
01929 2581 C9 RET
01930 2582 C9 RET
01931 2583 FB EI
01932 2584 C9 RET
01933 2585 C9 RET
01934 2586 FB EI
01935 2587 C9 RET
01936 2588 C9 RET
01937 2589 FB EI
01938 2590 C9 RET
01939 2591 C9 RET
01940 2592 FB EI
01941 2593 C9 RET
01942 2594 C9 RET
01943 2595 FB EI
01944 2596 C9 RET
01945 2597 C9 RET
01946 2598 FB EI
01947 2599 C9 RET
01948 2600 C9 RET
01949 2601 FB EI
01950 2602 C9 RET
01951 2603 C9 RET
01952 2604 FB EI
01953 2605 C9 RET
01954 2606 C9 RET
01955 2607 FB EI
01956 2608 C9 RET
01957 2609 C9 RET
01958 2610 FB EI
01959 2611 C9 RET
01960 2612 C9 RET
01961 2613 FB EI
01962 2614 C9 RET
01963 2615 C9 RET
01964 2616 FB EI
01965 2617 C9 RET
01966 2618 C9 RET
01967 2619 FB EI
01968 2620 C9 RET
01969 2621 C9 RET
01970 2622 FB EI
01971 2623 C9 RET
01972 2624 C9 RET
01973 2625 FB EI
01974 2626 C9 RET
01975 2627 C9 RET
01976 2628 FB EI
01977 2629 C9 RET
01978 2630 C9 RET
01979 2631 FB EI
01980 2632 C9 RET
01981 2633 C9 RET
01982 2634 FB EI
01983 2635 C9 RET
01984 2636 C9 RET
01985 2637 FB EI
01986 2638 C9 RET
01987 2639 C9 RET
01988 2640 FB EI
01989 2641 C9 RET
01990 2642 C9 RET
01991 2643 FB EI
01992 2644 C9 RET
01993 2645 C9 RET
01994 2646 FB EI
01995 2647 C9 RET
01996 2648 C9 RET
01997 2649 FB EI
01998 2650 C9 RET
01999 2651 C9 RET
02000 2652 FB EI
    
```

Address	Op Code	Op Name	Comments
01857			UPON ENTRANCE: HL--> STATUS OF THE VECTOR
01858			
01859			
01860	2515	L2515 EQU	
01861	2515	E5 FUSH	
01862	2516	CD7E27 >	DRWVECT ; DRAW THE VECTOR'S PATTERN
01863	2519	E1 POP	RESTORE STATUS POINTER
01864	251A	E5 FUSH	SAVE IT
01865	251B	CB4E BIT	I,(HL)
01866	251D	23 INC	BUMP TO TIMEBASE
01867	251E	3601 LD	PUT A 1 IN TIME BASE
01868	2520	2023 JR	NZ,L2545
01869	2522	110F00 LD	DE,I5 ; BUMP HL SO
01870	2525	19 ADD	HL--> VR + 17
01871	2526	35 DEC	DECREMENT THE TIME BASE
01872	2527	201C JR	NOT ZERO, VECTOR IT
01873	2529	2B DEC	ELSE, BACK UP PTR.
01874	252A	7E LD	TO GET HIGH PATTERN ADDRESS
01875	252B	2B DEC	AND THEN
01876	252C	6E LD	GET LOW PATTERN ADDRESS
01877	252D	67 LD	H,A ; HL--> PATTERN FOR VECTOR
01878	252E	23 INC	RUMPT TO
01879	252F	23 INC	NEXT
01880	2530	23 INC	PLAY
01881	2531	DD750F LD	(IX+15),L ; SAVE ADDR. OF NEXT
01882	2534	DD7410 LD	(IX+16),H ; PLAY
01883	2537	7E LD	A,(HL) ; GET TIMER FOR PLAY
01884	2538	DD7711 LD	(IX+17),A ; PUT IN VECTOR
01885	253B	23 INC	HL ; BUMP TO X DELTA
01886	253C	7E LD	A,(HL) ; GET IT
01887	253D	DD7704 LD	(IX+VDXH),A ; AND PUT IN DELTA X
01888	2540	23 INC	HL ; BUMP TO Y DELTA
01889	2541	7E LD	A,(HL) ; GET IT
01890	2542	DD7709 LD	(IX+VDYH),A ; AND PUT IN VECTOR
01891			
01892	2545	L2545 EQU	
01893	2545	219127 >	HL,LIMIT2 ; HL--> LIMITS TABLE
01894	2548	DDCR015E BIT	3,(IX+VRSTAT)
01895	254C	2009 JR	NZ,L2557
01896	254E	DDCR0C7E BIT	7,(IX+VRCHK)
01897	2552	2003 JR	NZ,L2557
01898	2554	218D27 >	HL,LIMIT1 ; HL--> LIMITS TABLE
01899			
01900	2557	L2557 EQU	
01901			VECTOR COORDINATE PAIR
	2557	FF SYSTEM	VECT
	2558	3E RST	38H
			VECT
01902			
01903	2559	E1 POP	HL ; RESTORE HL--> STATUS
01904	255A	DDCR015E BIT	3,(IX+VRSTAT)
01905	255E	280E JR	Z,L256E
01906	2560	DDCR075E BIT	VBCLAT,(IX+VRCHK) ; HIT X LIMIT?

01907	2564	C22420	>	JP	NZ,L2024
01908	2567	DDCROCSE		RIT	VRCLAT,(IX+VBYCHK) ; OK Y LIMIT?
01909	2568	C22420	>	JP	NZ,L2024
01910					
01911	256E	L256E	>	EQU	\$
01912	256E	CR66		RIT	4,(HL)
01913	2570	2820		JR	Z,L2592
01914	2572	CRA6		RES.	4,(HL)
01915	2574	ED5F		LD	A,R
01916	2576	CR47		RIT	O,A
01917	2578	3E01		LD	A,O1H
01918	257A	2002		JR	NZ,L257E
01919	257C	ED44		NEG	
01920					
01921	257E	L257E	>	EQU	\$
01922	257E	DD860R		ADD	A,(IX+VBYH)
01923	2581	DD770R		LD	(IX+VBYH),A
01924	2584	CR46		RIT	O,(HL)
01925	2586	3E01		LD	A,O1H
01926	2588	2002		JR	NZ,L258C
01927	258A	ED44		NEG	
01928					
01929	258C	L258C	>	EQU	\$
01930	258C	DD8606		ADD	A,(IX+VBYH)
01931	258F	DD7706		LD	(IX+VBYH),A
01932					
01933	2592	L2592	>	EQU	\$
01934	2592	CR56		RIT	2,(HL)
01935	2594	284E		JR	Z,L25E4
01936	2596	110800		LD	DE,B
01937	2599	CR6E		RIT	5,(HL)
01938	259B	CAAF25	>	JP	Z,L25AF
01939	259E	3ABD4F	>	LD	A,(SCRIMLIN)
01940	25A1	D603		SUB	O3H
01941	25A3	DDRE06		CF	(IX+VBYH)
01942	25A6	3807		JR	C,L25AF
01943	25AB	2AC34F	>	LD	HL,(CURQPAT)
01944	25AB	1E10		LD	E,10H
01945	25AD	1825		JR	L25D4
01946					
01947	25AF	L25AF	>	EQU	\$
01948	25AF	CR6E		RIT	5,(HL)
01949	25B1	CR6E		RES	5,(HL)
01950	25B3	C4A426	>	CALL	NZ,AFFFLAUSE
01951	25B6	CR46		RIT	O,(HL)
01952	25B8	280E		JR	Z,L25C8
01953	25BA	21CA2C	>	LD	HL,G.END03
01954	25BD	DDC80C7E		RIT	7,(IX+VBYCHK)
01955	25C1	2811		JR	Z,L25D4
01956	25C3	21EA2C	>	LD	HL,G.END07
01957	25C6	180C		JR	L25D4
01958					



02011	2623	D602	SUR	02H	
02012	2625	DD9606	SUR	(IX+VBXH)	
02013	2628	3068	JR	NC,L2692	
02014	262A	ED44	NEG		
02015	262C	FE07	CF	07H	
02016	262E	3062	JR	NC,L2692	
02017	2630	FD7E08	LD	A,(IY+VBXH)	
02018	2633	3D	DEC	A	
02019	2634	DD9608	SUR	(IX+VBXH)	
02020	2637	3059	JR	NC,L2692	
02021	2639	ED44	NEG		
02022	263B	FE07	CF	07H	
02023	263D	3053	JR	NC,L2692	
02024	263F	C1	POP	RC	
02025	2640	DDCROIRE	RES	VRSACT,(IX+VRSTAT)	
02026	2644	21AD2C	LD	HL,G,FBALL	
02027	2647	CB8127	CALL	DRWVECTA	
02028	264A	FD227F4E	LD	(MUSICWRK),IY	
02029	264E	FDCROCFE	SET	7,(IY+12)	
02030	2652	DDCRO77E	RIT	7,(IX+VBXCHK)	
02031	2656	2807	JR	Z,L265F	
02032	2658	FDCRO146	RIT	0,(IY+1)	
02033	265C	CA2420	JF	Z,L2024	
02034					
02035	265F	> L265F	ERU	\$	
02036	265F	FDCRO146	RIT	0,(IY+1)	
02037	2663	2833	JR	Z,L2698	
02038	2665	DDCROCRE	RES	7,(IX+VBXCHK)	
02039	2669	3E86	LD	A,86H	
02040	266B	DD7701	LD	(IX+VRSTAT),A	
02041	266E	32824E	LD	(L4E82),A	
02042	2671	3A854E	LD	A,(QFOSOLDX)	
02043	2674	DD7706	LD	(IX+VBXH),A	
02044	2677	3A864E	LD	A,(QFOSOLDY)	
02045	267A	DD770B	LD	(IX+VBXH),A	
02046	267D	2A834E	LD	HL,(GOLDFATR)	
02047	2680	CD8127	CALL	DRWVECTA	
02048	2683	AF	XOR	A	
02049	2684	32DA4E	LD	(VCTO0TRR+VBXH),A	
02050	2687	32DF4E	LD	(VCTO0TRR+VBXH),A	
02051					
02052	268A	FF	SYSSUK	RMUSIC	START PLAYING
02053	268B	13	RST	38H	VICTORY SOUNDS
02054	268C	7F4E	BYTE	RMUSIC+1	ONCE ONLY
02055	268E	0C	WORD	MUSICWRK	STACK
02056	268F	C72F	BYTE	00001100B	1-VOICE (C)
02057	2691	C9	WORD	L2FC6	SCORE
02058			RET		
02059	2692	> L2692	ERU	\$	
02060	2692	C1	POP	RC	



02109	26D4	300E	JR	NC,L26E4
02110	26D6	FE20	CF	20H
02111	26D8	D07E06	LD	A,(IX+VRXH)
02112	26D8	0605	LD	R,05H
02113	26D0	2802	JR	Z,L26E1
02114	26DF	0623	LD	R,23H
02115				
02116	26E1	> L26E1	EQU.	\$
02117	26E1	R8	CF	R
02118	26E2	38E7	JR	C,L26CR
02119				
02120	26E4	> L26E4	EQU.	\$
02121	26E4	D0CR075E	RIT	VRCLAT,(IX+VRXCHK) ; HIT LIMIT YET?
02122	26E8	C8	RET	Z
02123	26E9	D07E06	LD	A,(IX+VRXH)
02124	26EC	B7	OR	A
02125	26ED	3ARR4F	LD	A,(L4FR)
02126	26F0	F5	PUSH	AF
02127	26F1	08	EX	AF,AF
02128	26F2	F1	POP	AF
02129	26F3	2809	JR	Z,L26FE
02130	26F5	D0CR0146	BIT	O,(IX+VRSTAT)
02131	26F9	C0	RET	NZ
02132	26FA	C628	ADD	A,28H
02133	26FC	1813	JR	L2711
02134				
02135	26FE	> L26FE	EQU	\$
02136	26FE	D0CR0146	BIT	O,(IX+VRSTAT)
02137	2702	C8	RET	Z
02138	2703	FE30	CF	48
02139	2705	2008	JR	NZ,L270F
02140	2707	08	EX	AF,AF
02141	2708	F5	PUSH	AF
02142	2709	3E10	LD	A,10H
02143	2708	0E00	LD	C,00H
02144	270D	1808	JR	L271A
02145				
02146	270F	> L270F	EQU	\$
02147	270F	D638	SUB	38H
02148				
02149	2711	> L2711	EQU	\$
02150	2711	27	IMA	
02151	2712	32BC4F	LD	(LINERALL),A
02152	2715	08	EX	AF,AF
02153	2716	F5	PUSH	AF
02154	2717	C05228	CALL	L2852
02155				
02156	271A	> L271A	EQU	\$
02157	271A	32RR4F	LD	(L4FR),A
02158	271D	79	LD	A,C ; USE A AS AN INDEX
02159	271E	21452E	LD	HL,YAKDSTAR ; HL--> TABLE
02160			SYSTEM	INDEXB ; INDEX BYTE

Address	Instruction	Comments
2721	FF	38H
2722	5C	INDEXR
02161		
02162	2723 DDE5	IX
02163	2725 CD6R28 >	DRWFIELD
02164	2728 DDE1	IX
02165	272A 0610	R,10H
02166	272C 111300	DE,VECTSZ
02167	272F FD21884E>	IY,UCTEND1
02168	2733 E1	HL
02169		
02170	2734 > L2734	EQU, \$
02171	2734 FD7E06	A,(IY+VEXH)
02172	2737 4A	C,D
02173	2738 FDCR01RE	URSACT,(IY+VRSTAT) ; DE-ACTIVATE THIS VECTOR
02174	273C DDCR0146	O,(IX+VRSTAT)
02175	2740 2810	Z,L2752
02176	2742 FE40	40H
02177	2744 3021	NC,L2767
02178	2746 C65A	A,90
02179	2748 F5	AF
02180	2749 7C	A,H
02181	274A FE30	4B
02182	274C 2010	NZ,L275E
02183	274E 0EE2	C,-30
02184	2750 180C	L275E
02185		
02186	2752 > L2752	EQU, \$
02187	2752 D65A	90
02188	2754 3811	C,L2767
02189	2756 F5	AF
02190	2757 7C	A,H
02191	2758 FE60	96
02192	275A 2002	NZ,L275E
02193	275C 0E1E	C,-30
02194		
02195	275E > L275E	EQU, \$
02196	275E F1	AF
02197	275F 81	A,C
02198	2760 FD7706	(IY+VEXH),A
02199	2763 FDCR01FE	URSACT,(IY+VRSTAT) ; ACTIVATE THIS VECTOR
02200		
02201	2767 > L2767	EQU, \$
02202	2767 FD19	IY,DE
02203	2769 FDCR015E	3,(IY+VRSTAT)
02204	276D, 20F8	NZ,L2767
02205	276F FDCR017E	URSACT,(IY+VRSTAT) ; IS THIS VECTOR ACTIVE?
02206	2773 28F2	Z,L2767
02207	2775 108D	L2734 ; LOOP UNTIL ALL DONE
02208	2777 E1	HL
02209	2778 C3C224 >	DRWTEAM ; NOW DRAW THE TEAM

```

02211 ;
02212 ; DRWVECT -- DRAWS A VECTOR FROM (IX)
02213 ;
02214 > DRWVECT EQU $
02215 2778 DD660E H,(IX+VROAH) ; GET PATTERN ADDRESS HIGH
02216 277E DD6E0D L,(IX+VROAL) ; AND LOW
02217 ;
02218 > DRWVECTA EQU $
02219 2781 DD560B D,(IX+VRYH) ; GET Y HIGH
02220 2784 DD5E06 E,(IX+VRXH) ; NOW X HIGH
02221 2787 DD7E00 A,(IX+VRMR) ; AND MAGIC REG.
02222 278A FF WRITP ; WRITE PATTERN WITH SIZE LOOK-UP
02223 278R 22 RST 3BH
02224 278C C9 WRITP RET
  
```

```

02226 ;
02227 ; LIMITS TABLE
02228 ;
02229 > LIMIT1 EQU $
02230 278D 0496 ; X UPPER, X lower
02231 278F 0852 ; Y UPPER, Y lower
02232 ;
02233 ; LIMITS TABLE
02234 ;
02235 > LIMIT2 EQU $
02236 2791 009B ; X UPPER, X lower
02237 2793 045B ; Y UPPER, Y lower
  
```

```

02239 ; INITPLAY -- INITIALIZES VECTORS WITH PLAYS FROM TABLES
02240 ;
02241 ; UPON ENTRANCE: HL --> TABLE OF WORD PTRS TO PLAY PATTERNS
02242 ; DE --> VECTOR + 15
02243 ; A = NUMBER OF VECTORS
02244 ;
02245 ;
02246 > 2795 EQU. $ ; SAVE # OF VECTORS
02247 2795 41 LD R,C
02248 ;
02249 > INITFLAO EQU $
02250 2796 7E LD A,(HL) ; GET LOW ADDR
02251 2797 23 INC HL ; RUMF TO HIGH
02252 2798 12 LD (DE),A ; SAVE IN VECTOR + 15
02253 2799 13 INC DE ; RUMF TO NEXT BYTE IN VECTOR
02254 279A 7E LD A,(HL) ; GET HIGH ADDR
02255 279B 23 INC HL ; RUMF TO NEXT TABLE ENTRY
02256 279C 12 LD (DE),A ; PUT HIGH ADDR IN VECTOR + 16
02257 279D 3E12 LD A,18 ; OFFSET TO NEXT (VECTOR+15)
02258 279F 83 ADD A,E
02259 27A0 5F LD E,A
02260 27A1 3E00 LD A,00H
02261 27A3 8F ADC A,A
02262 27A4 82 ADD A,D
02263 27A5 57 LD D,A ; DE--> NEXT VECTOR
02264 27A6 10EE DJNZ INITFLAO
02265 27A8 C9 RET

```

```

02267 ; INITVECT -- INITIALIZES A VECTOR WITH X,Y COORDINATES FROM POSITION TABLE
02268 ;
02269 ; UPON ENTRANCE: HL --> VRXL IN VECTOR
02270 ; DE --> POSITION TABLE (X,Y, ADDR(PATTERN))
02271 ; A = # OF VECTORS
02272 ;
02273 ;
02274 > 27A9 EQU $ ; SAVE NUMBER OF VECTORS
02275 27A9 47 LD R,A
02276 ;
02277 > INITVECO EQU $
02278 27AA AF XOR A ; ZERO A
02279 27AB 77 LD (HL),A ; VRXL = 0
02280 27AC 23 INC HL ; HL--> VRXH
02281 27AD 1A LD A,(DE) ; GET THE X COORD. FROM THE TABLE
02282 27AE 4F LD C,A ; SAVE IT
02283 27AF E5 PUSH HL ; SAVE VECTOR PTR
02284 27B0 21BD4F > LD HL,SCRIMLIN ; HL--> LINE OF SCRIMMAGE VALUE (X COORD.)
02285 27B3 7E LD A,(HL) ; GET THE CURRENT LINE OF SCRIMMAGE X COORD.
02286 27B4 E1 POP HL ; RESTORE VECTOR PTR
02287 27B5 81 ADD A,C ; ADD POSITION OFFSET FROM TABLE
02288 27B6 77 LD (HL),A ; AND PUT IN VRXH

```

02289	27B7 13	INC	DE	;	BUMP TO Y COORD. IN TABLE
02290	27B8 23	INC	HL	;	BUMP
02291	27B9 23	INC	HL	;	PTR
02292	27BA 23	INC	HL	;	TO
02293	27BB 23	INC	HL	;	HL--> VRYL
02294	27BC AF	XOR	A	;	ZERO LOW Y CUORD
02295	27BD 77	LD	(HL),A	;	VRYL
02296	27BE 1A	LD	A,(DE)	;	GET Y CUORD. OFFSET FROM TABLE
02297	27BF 23	INC	HL	;	HL--> VRYH
02298	27C0 77	LD	(HL),A	;	FUT THE Y POS. IN THE VECTOR
02299	27C1 13	INC	DE	;	BUMP TABLE PTR TO PATTERN ADDRESS(LOW)
02300	27C2 23	INC	HL	;	BUMP VECTOR POINTER
02301	27C3 23	INC	HL	;	TO HL--> VRYAL
02302	27C4 1A	LD	A,(DE)	;	GET PATTERN ADDR(LOW)
02303	27C5 77	LD	(HL),A	;	FUT IN VECTOR VRYAL
02304	27C6 13	INC	DE	;	BUMP
02305	27C7 23	INC	HL	;	PTRS
02306	27C8 1A	LD	A,(DE)	;	GET PATTERN ADDR(HIGH)
02307	27C9 77	LD	(HL),A	;	GET PATTERN ADDR(HIGH)
02308	27CA 13	INC	DE	;	BUMP TABLE PTR TO NEXT TABLE ENTRY
02309	27CB 3E0A	LD	A,10	;	OFFSET TO VBXL OF NEXT VLVCTOR
02310	27CD 85	ADD	A,L		
02311	27CE 6F	LD	L,A		
02312	27CF 3E00	LD	A,00H		
02313	27D1 8F	AUC	A,A		
02314	27D2 84	ADD	A,H		
02315	27D3 67	LD	H,A	;	HL--> NEXT VECTOR VBXL
02316	27D4 10D4	DJNZ	INITVECO		
02317	27D6 C9	RET			
02318					
02319	27D7 > L27D7	EQV	\$		
02320	27D7 F5	PUSH	AF		
02321	27D8 3AB8AF >	LD	A,(LAFBB)		
02322	27D8 57	LD	D,A		
02323	27DC F1	POP	AF		
02324	27DD 92	SUR	D		
02325	27DE 2827	JR	Z,L2807		
02326	27E0 F2E27 >	JP	P,L27ED		
02327	27E3 82	ADD	A,D		
02328	27E4 5F	LD	E,A		
02329	27E5 7A	LD	A,D		
02330	27E6 93	SUR	E		
02331	27E7 27	DAA			
02332	27E8 CDF327 >	CALL	L27F3		
02333	27E8 90	SUR	B		
02334	27EC C9	RET			
02335					
02336	27ED > L27ED	EQV	\$		
02337	27ED 27	DAA			
02338	27EE CDF327 >	CALL	L27F3		
02339	27F1 80	ADD	A,B		
02340	27F2 C9	RET			

02341									
02342	27F3	>	L27F3	ERU	\$				
02343	27F3 06FF			LD		R,OFFH			
02344									
02345	27F5	>	L27F5	ERU	\$				
02346	27F5 04			INC		R			
02347	27F6 D610			SUR		10H			
02348	27F8 30F8			JR.		NC,L27F5			
02349	27FA C610			ADD		A,10H			
02350									
02351	27FC	>	L27FC	ERU	\$				
02352	27FC C60A			ADD.		A,0AH			
02353	27FE 10FC			DJNZ		L27FC			
02354	2800 47			LD		R,A			
02355	2801 AF			XOR		A			
02356									
02357	2802	>	L2802	ERU	\$				
02358	2802 C603			ADD		A,03H			
02359	2804 10FC			DJNZ		L2802			
02360	2806 47			LD		R,A			
02361									
02362	2807	>	L2807	ERU	\$				
02363	2807 3E41			LD		A,41H			
02364	2809 C9			RET					
02365									
02366	280A	>	L280A	ERU	\$				
02367	280A D641			SUR		65			
02368	280C 2834			JR		Z,L2842			
02369	280E F21D28	>		JF		F,L281D			
02370	2811 ED44			NEG					
02371	2813 CD2828	>		CALL		DIV3			
02372	2816 90			SUR		B			
02373	2817 27			DAA					
02374	2818 FE00			CF		00H			
02375	281A C0			RET		NZ			
02376	281B 3C			INC		A			
02377	281C C9			RET					
02378									
02379	281D	>	L281D	ERU	\$				
02380	281D CD2828	>		CALL		DIV3			
02381	2820 80			ADD		A,B			
02382	2821 27			DAA					
02383	2822 FE00			CF		00H			
02384	2824 C0			RET		NZ			
02385	2825 3E99			LD		A,99H			
02386	2827 C9			RET					
02387									
02388									
02389									
02390									
02391									
02392									

RIGHT SIDE OF SCREEN?  
 NO, MAKE DIFFERENCE POSITIVE

DIV3 -- DIVIDE 'A' BY 3 (BCD)  
 UPON EXIT: R = RESULT  
 A = ???

```

02393 2828 > DIV3 EQU $
02394 2828 06FF LD B,-1 ; START RESULT
02395
02396 282A > L282A EQU $
02397 282A 04 INC B
02398 282B 1603 SUR 3
02399 282D 30FB JR NC,L282A ; KLEP DIVIDING
02400 282F 78 LD A,R ; SAVE RESULT IN A
02401 2830 0600 LR B:0
02402
02403 2832 > L2832 EQU $
02404 2832 FE0A CF 10 ; IS RESULT < 10?
02405 2834 380A JR C,L2840 ; YES
02406 2836 DE0A SBC A,0AH
02407 2838 F5 PUSH AF
02408 2839 3E10 LD A,10H ; RUMP B BY 10 (BCD)
02409 283B 80 ADD A,B
02410 283C 47 LD R,A ; SAVE IN B
02411 283D F1 POP AF
02412 283E 18F2 JR L2832 ; CHECK AGAIN
02413
02414 2840 > L2840 EQU $
02415 2840 80 AND A,R ; ADD TO REMAINDER
02416 2841 47 LD R,A ; RESULT IN B
02417
02418 2842 > L2842 EQU $
02419 2842 3AB8AF > LD A,(LAFBB) ; GET ?? (BCD VALUE)
02420 2845 C9 RET
02421
02422 2846 > L2846 EQU $
02423 2846 FE51 CF 51H
02424 2848 D8 RET C
02425 2849 D650 SUR 50H
02426 284B 27 DAA
02427 284C 47 LD R,A
02428 284D 3E50 LD A,50H
02429 284F 90 SUR R
02430 2850 27 DAA
02431 2851 C9 RET
02432
02433 2852 > L2852 EQU $
02434 2852 3ABCAF > LD A,(LINERBALL) ; GET THE BALL'S YARD LINE
02435 2855 0E07 LD C,07H
02436 2857 57 LD D,A
02437 2858 08 EX AF,AF
02438 2859 3E80 LD A,80H
02439 285B BA CP ;D
02440 285C C8 RET Z
02441 285D D8 RET C
02442 285E 0E00 LD C,00H
02443 2860 3E10 LD A,10H
02444
    
```

```

02445 2862 > L2862 EQU $
02446 2862 BA CF D
02447 2863 2801 JR Z,L2866
02448 2865 D0 RET NC
02449
02450 2866 > L2866 EQU $
02451 2866 0C INC C
02452 2867 C610 ADD A,10H
02453 2869 18F7 JR L2862
  
```

```

02455 ; DRWFIELD -- DRAWS THE PLAY FIELD (BASED ON CONDITIONS)
02456 ;
02457 ; UPON ENTRANCE: HL --> SOMEWHERE WITHIN THE YARD TABLE POINTER
02458 ; (SCALED TO FIT ON THE SCREEN)
02459 ;
02460 ;
02461 ; DRWFIELD EQU $
02462 286B > DRWFIELD EQU $ HL ; SAVE YARD TABLE POINTER
02463 286C E5 PUSH HL,L4FC0
02464 286F 21C04F > LD A,(L4FC0)
02465 2872 3AB84F > LD A,(L4F8B)
02466 2874 F5 CF 70H
02467 2875 3E27 FUSH AF
02468 2877 2819 LD A,27H
02469 2879 3806 JR Z,L2892
02470 287B C8CE JR C,L2881
02471 287D 3E1F SET I,(HL)
02472 287F 1811 LD A,1FH
02473 JR L2892
02474 > L2881 EQU $
02475 2881 F1 FOP AF
02476 2882 F5 PUSH AF
02477 2883 FE20 CF 20H
02478 2885 3E01 LD A,01H
02479 2887 2809 JR Z,L2892
02480 2889 3006 JR NC,L2891
02481 288B C8C6 SET O,(HL)
02482 288D 3E09 LD A,09H
02483 288F 1801 JR L2892
02484
02485 > L2891 EQU $
02486 2891 AF XOR A
02487
02488 > L2892 EQU $
02489 2892 47 LD B,A
02490 2893 D7 RST CMAG ; GET LINE OF SCRIMMAGE MAGIC REG.
02491 2894 78 LD A,B
02492 2895 280E JR Z,L28A5
02493 2897 3E03 LD A,03H
02494 2899 A6 AND (HL)
  
```

02495	289A	2804	JR	Z,L28A0	
02496	289C	3E03	LD	A,03H	
02497	289E	AE	XDR	(HL)	
02498	289F	77	LD	(HL),A	
02499					
02500	28A0	>	EQU	\$	
02501	28A0	78	LD	A,B	
02502	28A1	DE28	SRC.	A,40	
02503	28A3	ED44	NEG		
02504					
02505	28A5	>	EQU	\$	
02506	28A5	C6C0	ADD.	A,11000000R	FORCE BACKGROUND FRAME TO COLOR 3
02507	28A7	D309	OUT	(HORCB),A	SET NEW COLOR BOUNDARY
02508					
02509	28A9	FF	SYSSUK	FILL	BLANK SCREEN
	28AA	1B	RST	38H	
	28AB	0040	BYTE	FILL+1	
02510	28AD	100E	WORD	NORMEM	START
02511	28AF	00	WORD	90*BYTEPL	LENGTH
02512			BYTE	0	FILL CHAR.
02513					
02514	28B0	00	NDP		
02515					
02516	28B1	FF	SYSSUK	FILL	DRAW TOP SIDELINE
	28B2	1B	RST	38H	
	28B3	0040	BYTE	FILL+1	
02517	28B5	F000	WORD	NORMEM	START
02518	28B7	FF	WORD	6*BYTEPL	6 PIXEL LINES
02519			BYTE	11111111R	COLOR 3
02520					
02521	28B8	D7	RST	CHAG	GET LINE OF SCRIMMAGE MAGIC REG.
02522	28B9	2815	JR	Z,L28D0	
02523	28BB	3EDA	LD	A,-38	
02524	28BD	08	EX	AF,AF	
02525	28BE	119700	LD	DE,151	
02526	28C1	0E28	LD	C,28H	
02527	28C3	21052E	LD	HL,COLIST5	HL--> NEW COLOR LIST
02528	28C6	F1	POP	AF	
02529	28C7	3EAA	LD	A,0AAH	
02530	28C9	3018	JR	NC,L28E3	
02531	28CB	21012E	LD	HL,COLIST4	HL--> NEW COLOR LIST
02532	28CE	1813	JR	L28E3	
02533					
02534	28D0	>	EQU	\$	
02535	28D0	3E16	LD	A,16H	
02536	28D2	08	EX	AF,AF	
02537	28D3	110200	LD	DE,2	
02538	28D6	0E24	LD	C,24H	
02539	28D8	21F52D	LD	HL,COLIST1	HL--> NEW COLOR LIST
02540	28D8	F1	POP	AF	
02541	28DC	3E55	LD	A,55H	COLOR PATTERN FOR YARD LINE
02542	28DE	3003	JR	NC,L28E3	

```

02543 28E0 21F92D > LD HL,COLIST2 ; HL--> NEW COLOR LIST
02544
02545 28E3 > L28E3 EQU SYSTEM ; SET NEW COLORS
02546 28E3 FF RST 38H COLSET
28E4 1B RST 38H COLSET
28E5 C5 PUSH RC
02547 28E6 015000 LD RC,2*BYTEPL ; 2 PIXELS WIDE
02548 28E9 D5 PUSH DE
02550 28EA 11F040 LD DE,NORMEM+(6*BYTEPL) ; OFFSET TO DRAW YARDLINE
02551
02552 28ED FF SYSTEM FILL ; DRAW THE YARD LINE
28EE 1A RST 38H
RYTE FILL
02553
02554 28EF 11C04D LD DE,NORMEM+(8*BYTEPL) ; OFFSET TO DRAW BOTTOM YARDLINE
02555
02556 28F2 FF SYSTEM FILL ; DRAW THE BOTTOM ONE
28F3 1A RST 38H
RYTE FILL
02557
02558 28F4 D1 POP DE
02559 28F5 C1 POP RC
02560 28F6 08 EX AP,AF
02561 28F7 E1 POP HL
02562 28F8 0606 LD R,6 ; DISPLAY 6 10-YARD MARKERS
02563 28FA DD210D02 LD IX,FNTSHL ; IX = SMALL CHARACTER FONT POINTER
02564
02565 28FE > L28FE EQU $
02566 28FE C5 PUSH RC
02567 28FF F5 PUSH AF
02568 2900 D5 PUSH DE
02569 2901 1C INC E
02570 2902 1C INC E
02571 2903 1C INC E
02572 2904 1606 LD D,6 ; Y COORD = PIXEL LINE 6
02573 2906 010102 LD RC,0201H ; 2 HIGH x 1 WIDE
02574 2909 3EFF LD A,11111111B ; PIXEL PATTERN (COLOR 3)
02575 290B DF RST PROX ; PAINT A ROX
02576 290C 165B LD D,88 ; AND ON LINE 88, TOO!
02577 290E DF RST PRUX ; PAINT A ROX
02578 290F D1 POP DE
02579 2910 F1 POP AF
02580 2911 C1 POP RC
02581 2912 C5 PUSH RC
02582 2913 06C2 LD B,0C2H ; ZERO SUPPRESS, ALT. FONT, 2 DIGITS
02583
02584 2915 FF SYSTEM DISNUM ; DISPLAY A NUMBER (YARDLINE)
2916 36 RST 38H
RYTE DISNUM
02585
02586 2917 23 INC HL ; BUMP YARDLINE TABLE POINTER

```

```

02587 2918 F5          PUSH      AF
02588 2919 B3          ADD       E,A
02589 291A 5F          LD        E,A
02590 291B F1          POP       AF
02591 291C C1          POP       BC
02592 291D 10DF       DJNZ     L28FE
02593 291F 21C0AF > LD        HL,L4FC0
02594 2922 7E          LD        A,(HL)
02595 2923 E603       AND      03H
02596 2925 C8          RET
02597 2926 CB4F       BIT      1,A
02598 2928 200D       JR       NZ,L2937
02599 292A 110000     LD        DE,0
02600 292D D5          FUSH     DE
02601 292E D7          RST      CHAG
02602 292F 3EAA       LD        A,0AAH
02603 2931 2011       JR       NZ,L2944
02604 2933 3E55       LD        A,55H
02605 2935 180D       JR       L2944
02606
02607 > 2937          EQU     $
02608 2937 119600     LD        DE,150
02609 293A D5          FUSH     DE
02610 293B D7          RST      CHAG
02611 293C 3E55       LD        A,55H
02612 293E 2802       JR       Z,L2942
02613 2940 3EAA       LD        A,0AAH
02614
02615 2942          EQU     $
02616 2942 1E9A       LD        E,15A
02617
02618
02619
02620 > 2944          EQU     $
02621 2944 1606       LD        D,6
02622 2946 010654     LD        BC,84*256+6
02623 2949 DF          RST      FBOX
02624 294A 3EFF       LD        A,OFFH
02625 294C D1          POP      DE
02626 294D 010A05     LD        EC,5*256+10
02627 2950 DF          RST      FBOX
02628 2951 3EFC       LD        A,OFCH
02629 2953 A6          AND      (HL)
02630 2954 77       LD        (HL),A
02631 2955 C9       RET
  
```

! GET LINE OF SCRIMMAGE MAGIC REG.

! GET LINE OF SCRIMMAGE MAGIC REG.

! X COORD.

! DRAW END ZONE

! UPPER YARD LINE COORD  
 ; Y=84, X=6 (BOX 84 HIGH X 6 WIDE)

! AT OPPOSITE SIDE NOW  
 ; Y=5, X=10 (5 HIGH X 10 WIDE)

! PAINT A BOX

! PAINT A BOX

```

02633 *****
02634 *
02635 * PLAYER INPUT TRANSITION PROCESSING ROUTINES
02636 *
02637 *****
  
```

```

02639 | DOKNOR1 -- KNOB 1 TRANSITION PROCESSOR
02640 |
02641 | 2956 > DOKNOR1 EQU $
02642 |
02643 2956 D7 RST CMAU ; GET LINE OF SCRIMMAGE MAGIC REG.
02644 2957 C8 RET Z ; NOT OFFENSE, EXIT
02645 2958 78 LD A,B ; ELSE, COMPLEMENT
02646 2959 2F CPL
02647 295A 1803 JR DOKNORS ; COMMON
  
```

```

02649 | DOKNOR0 -- KNOB 0 TRANSITION PROCESSOR
02650 |
02651 295C > DOKNOR0 EQU $
02652 295C D7 RST CMAG ; GET LINE OF SCRIMMAGE MAGIC REG.
02653 295D C0 RET NZ
02654 295E 78 LD A,B
02655 |
  
```

```

02657 | DOKNORS -- COMMON PROCESSING FOR KNOBS
02658 |
02659 295F > DOKNORS EQU $
02660 295F E6E0 AND OEOH
02661 2961 CF RST ODRF ; IS VECTOR QUARTERBACK OR FOOTBALL?
02662 2962 C0 RET NZ ; FOOTBALL, EXIT
02663 2963 21C64F > LD HL,L4FC6
02664 2967 77 LD C,(HL)
02665 2968 2B LD (HL),A
02666 2969 FE00 DEC HL
02667 296B 280F JR Z,DOKNORSA
02668 296D FE00 CP OEOH
02669 296F 280F JR Z,DOKNORSB
02670 2971 B9 CP C
02671 2972 C8 RET Z
02672 2973 380F JR C,DOKNORSC
02673 2975 3E04 LD A,04H
02674 2977 BE CP (HL)
02675 2978 C8 RET Z
02676 2979 34 INC (HL)
02677 297A 180C JR DOKNORSX
02678 |
  
```

```

02679 | DOKNORSA EQU $
02680 297C > DOKNORSA LD (HL),00H
  
```

```

02681 297E 1808      JR      DOKNORSX
02682
02683      2980 > DOKNORSB EQU      $
02684 2980 3604      LD      (HL),04H
02685 2982 1804      JR      DOKNORSX
02686
02687      2984 > DOKNORSB EQU      $
02688 2984 AF      XOR      A
02689 2985 BE      CP      (HL)
02690 2986 C8      RET      Z
02691 2987 35      DEC      (HL)
02692
02693      2988 > DOKNORSX EQU      $
02694 2988 F3      DI
02695 2989 7E      LD      A,(HL)
02696 298A 07      RLCA
02697 298B 21522E >      HL,OPATERN$ ; HL--> QUARTERRACK PATTERN POINTER TABLE
02698 298E E7      RST      NDXW ; INDEX WORD TABLE
02699 298F ED53C34F >      LD      (CUROPAT),DE ; SAVE PATTERN ADDRESS
02700 2993 3E01      LD      *A,1 ; INDEX 2ND ENTRY (N:XI PATTERN TO DRAW)
02701 2995 E7      RST      NDXW ; INDEX WORD TABLE
02702 2996 ED53E34E >      LD      (VCTOQTRB+15),DE ; SAVE ADDR. OF NEXT PATTERN TO DRAW
02703 299A FB      EI
02704 299B C9      RET
  
```

```

02706      ; DQTRIG1 -- TRIGGER 1 TRANSITION PROCESSOR
02707
02708      299C > DQTRIG1 EQU      $
02709 299C D7      RST      CMAG ; GET LINE OF SCRIMMAGE MAGIC REG.
02710 299D 2003      JR      NZ,DQTRIGS ; OK, WE HAVE THE BALL
02711 299F C9      RET      ; OTHERWISE, RETURN
  
```

```

02713      ; DQTRIG0 -- TRIGGER 0 TRANSITION PROCESSOR
02714
02715      29A0 > DQTRIG0 EQU      $
02716 29A0 D7      RST      CMAG ; GET LINE OF SCRIMMAGE MAGIC REG.
02717 29A1 C0      RET      NZ ; WE DO NOT HAVE THE BALL, RETURN
02718
02719      ; COMMON TRIGGER PROCESSING
02720
02721      29A2 > DQTRIGS EQU      $
02722 29A2 21D54E >      LD      HL,VCTOQTRB+VBRSTAT ; HL--> STATUS
02723 29A5 CB6E      RIT      S,(HL) ; DO WE HAVE THE BALL?
02724 29A7 C8      RET      Z ; NO, RETURN
02725 29A8 3E88      LD      A,88H ; INIT. NEW STATUS (ACTIVE & XXX)
02726 29AA F3      DI      (HL),A ; SAVE IN STATUS BYTE
02727 29AB 77      LD      HL,VCTOQTRB+VBYCHK
02728 29AC 21E04E >      LD
  
```

```

02729 29AF CBRE RES 7,(HL)
02730 29B1 23 INC HL,VC1EN1+VRSTAT
02731 29B2 11AD2C > LD HL,DE->B,FTBALL ; RUMP PTR. TO VROAL
02732 29B5 4E LD C,(HL) ; DE-> FOOTBALL PATTERN
02733 29B6 73 LD (HL),E ; GET OLD PATTERN
02734 29B7 23 INC HL ; FUT NEW
02735 29B8 46 LD B,(HL) ; RUMP TO
02736 29B9 72 LD (HL),D ; GET OLD PATTERN HIGH
02737 29BA ED43834E > LD (GOLDPATR),BC ; AND FUT NEW ONE
02738 29BE FR EI ; SAVE OLD PATTERN ADDRESS
02739 29BF 2189AE > LD HL,VC1EN1+VRSTAT
02740 29C2 CRCE SET 1,(HL) ; INDICATE TO CATCH THE BALL
02741 29C4 219C4E > LD HL,VC1END2+VRSTAT
02742 29C7 CRCE SET 1,(HL) ; INDICATE TO CATCH THE BALL
02743 29C9 21854E > LD HL,(POSOLDX) ; ML-> QUARTERBACK OLD X,Y COORDINATE BUFFER
02744 29CC 3ADA4E > LD HL,(VCTO0TRB+VRXH)
02745 29CF 77 LD (HL),A
02746 29D0 23 INC HL
02747 29D1 3ADF4E > LD A,(VCTO0TRB+VRXH)
02748 29D4 77 LD (HL),A
02749 29D5 C9 RET
    
```

```

02751 ; READTRG -- READS THE TRIGGERS FOR THE PROPER PLAYER
02752 ;
02753 ;
02754 29D6 > RDTRIG EQU $
02755 29D6 011064 LD BC,6410H
02756 29D9 D7 RST CHAG ; GET LINE OF SKIMMAGE MAGIC REG.
02757 29DA 2801 JR Z,RDTRIG
02758 29DC 0C INC C
02759 ;
02760 29DD > RDTRIG EQU $
02761 29DD ED78 IN A,(C)
02762 29DF CR67 RIT 4,A
02763 29E1 20F3 JR NZ,RDTRIG
02764 29E3 10F8 DJNZ RDTRIG
02765 ;
02766 29E5 > RDTRIG1 EQU $
02767 29E5 0664 LD B,64H
02768 ;
02769 29E7 > RDTRIG2 EQU $
02770 29E7 ED78 IN A,(C)
02771 29E9 CB67 RIT 4,A
02772 29EB 28F8 JR Z,RDTRIG1
02773 29ED 10F8 DJNZ RDTRIG2
02774 29EF C9 RET
    
```

Address	Instruction	Comments
02777		BACKGROUND INTERRUPT HANDLER
02778		
02779	29F0 > L29F0	\$ AF
02780	29F0 F5	FUSH RC
02781	29F1 C5	FUSH DE
02782	29F2 D5	FUSH HL
02783	29F3 E5	FUSH IX
02784	29F4 DDES	FUSH IY
02785	29F6 FDES	A:04H (TMR60),A
02786	29F8 3E04	LD A
02787	29FA 32ER4F >	HL,VCTLINO1+VRYCHK ; (CURSOR VECTOR)
02788	29FD AF	LD 5,(HL)
02789	29FE 21F34E >	JR Z,L2A58 ; BUMP ; TO VBYL
02790	2A01 CR6E	DEC HL
02791	2A03 2853	DEC HL
02792	2A05 2B	CP (HL)
02793	2A06 2B	EX AF,AF
02794	2A07 RE	INC HL ; NOW TO VBYH
02795	2A08 0B	XOR A ; A=0
02796	2A09 23	CP (HL) ; SEE IF ZERO
02797	2A0A AF	JR Z,L2A27
02798	2A0B RE	LD C,10H
02799	2A0C 2819	RST CHAB ; GET LINE OF SCRIMMAGE MAGIC REG.
02800	2A0E 0E10	JR Z,L2A14
02801	2A10 D7	JR C
02802	2A11 2801	
02803	2A13 0C	
02804		
02805	2A14 > L2A14	\$ A,(C)
02806	2A14 ED7B	IN OFH
02807	2A16 D9	EXX HL,SELF,LAY
02808	2A17 E60F	AND A
02809	2A19 2808	JR (HL)
02810	2A1B 21RA4F >	LD NZ,L2A23
02811	2A1E AF	XOR (HL),C
02812	2A1F B6	OR NZ,L2A23
02813	2A20 2001	JR (HL),C
02814	2A22 71	LD \$
02815		
02816	2A23 > L2A23	LD (HL)
02817	2A23 D9	EXX L2A58
02818	2A24 35	DEC JR
02819	2A25 1831	JR \$
02820		
02821	2A27 > L2A27	\$ AF,AF
02822	2A27 0B	EX Z,L2A4E
02823	2A28 2824	JR B
02824	2A2A D9	EXX A,29H
02825	2A2B 04	INC B
02826	2A2C 3E29	LD B
02827	2A2E RB	CP
02828	2A2F D9	EXX

```

02829 2A30 2006 JR NZ,L2A38
02830 2A32 23 HL
02831 2A33 CRF6 SET 6,(HL)
02832 2A35 2B DEC HL
02833 2A36 1B16 JR L2A4E
02834
02835 ; SCROLL THE CURSOR DOWN
02836
02837 2A38 > L2A38 EQU $
02838 2A38 2R DEC HL
02839 2A39 35 DEC (HL)
02840 2A3A 01020A LD RC,0102H ; R=# OF LINES TO SCROLL, C=# OF BYTES ON LINE TO SCROLL
02841 2A3D 11D8FF LD DE,-BYTEPL ; LINE INCREMENT (SCROLL DOWN IF NEGATIVE)
02842 2A40 2ACA4F > LD HL,(CURSRPOS) ; HL= ADDR. OF 1ST BYTE TO SCROLL
02843
02844 SYSTEM SCROLL ; SCROLL AREA OF SCREEN
RST 38H
BYTE SCROLL
2A43 FF
2A44 30 +
02845
02846 2A45 112800 LD DE,BYTEPL
02847
02848 2A48 > L2A48 EQU $
02849 2A48 19 ADD HL,DE ; SKIP ONE LINE
02850 2A49 22CA4F > LD (CURSRPOS),HL ; SAVE NFW CURSOR POSITION
02851 2A4C 180A JR L2A58 ; AND EXIT
02852
02853 2A4E > L2A4E EQU $
02854 2A4E 3E75 LD A,75H
02855 2A50 D9 EXX
02856 2A51 0C INC C
02857 2A52 D9 EXX
02858 2A53 77 LD (HL),A
02859 2A54 2B DEC HL
02860 2A55 3E0A LD A,10
02861 2A57 77 LD (HL),A
02862
02863 2A58 > L2A58 EQU $
02864 2A58 C10002 CALL STIMER ; SERVICE SYSTEM COUNTER, ETC.
02865 2A5B FDE1 POF IY
02866 2A5D DDE1 POF IX
02867 2A5F E1 POF HL
02868 2A60 D1 POF DE
02869 2A61 C1 POF BC
02870 2A62 F1 POF AF
02871 2A63 FB EI
02872 2A64 C9 RET
02874
02875 ; DOJYO -- JOYSTICK 0 TRANSITION PROCESSOR
02876 2A65 > DOJYO EQU $

```

FOOTBALL -- CARTRIDGE 3002 (C) 1979, BALLY MFG.

02877 2A65 D7 RST CHAG ; GET LINE OF SCRIMMAGE MAGIC REG.

02878 2A66 2034 JR NZ,DOJOYSA

02879 2A68 > DOJOYOA EQU ;

02880 2A68 110001 LD DE,0100H

02881 2A68 F7 RST 030H

02882 2A6C 2802 JR Z,DOJOYOR

02883 2A6E 1E40 LD E,40H

02884 2A70 > DOJOYOR EQU ;

02885 2A70 CDFD2A > CALL DOJOYMOV

02886 2A73 DD21D44E > LD IX,UCTOQTRB

02887 2A77 CD872A > CALL DOJOYSAV

02888 2A7A DD21884E > LD IX,UCTEND1

02889 2A7E CD872A > CALL DOJOYSAV

02890 2A81 EF RST NUMP ; GET # OF PLAYERS (2 OR 4)

02891 2A82 C0 RET NZ

02892 2A83 DD21984E > LD IX,UCTEND2

02893 2A87 > DOJOYSAV EQU ;

02894 2A87 DDC8014E BIT 1,(IX+VRSTAT)

02895 2A8B C8 RET Z

02896 2A8C DD7204 LD (IX+VRDXH),D

02897 2A8F DD7303 LD (IX+VRDXL),E

02898 2A92 DD7508 LD (IX+VRDYL),L

02899 2A95 DD7409 LD (IX+VRDYH),H

02900 2A98 C9 RET

02905 ; DOJOY1 -- JOYSTICK 1 TRANSITION PROCESSOR

02906 2A99 > DOJOY1 EQU ;

02907 2A99 D7 RST CHAG ; GET LINE OF SCRIMMAGE MAGIC RFG.

02908 2A9A 20CC JR NZ,DOJOYOA

02909 2A9C > DOJOYSA EQU ;

02910 2A9C 110001 LD DE,0100H

02911 2A9C F7 RST 030H

02912 2AA0 2011 JR NZ,DOJOYSA2

02913 2AA2 EF RST NUMP ; GET # OF PLAYERS (2 OR 4)

02914 2AA3 280C JR Z,DOJOYSA1

02915 2AA5 2A7F4E > LD HL,(MUSICMCK)

02916 2AA8 23 INC HL

02917 2AA9 CB6E BIT 5,(HL)

02918 2AAB 2006 JR NZ,DOJOYSA2

02919 2AAB 2006 JR NZ,DOJOYSA2

02920 2AAD CB5E BIT 3,(HL)

02921 2AAF 2002 JR NZ,DOJOYSA2

02922 2A81 > DOJOYSA1 EQU ;

02923 2A81 1E40 LD E,40H

02924 2A81 1E40 LD E,40H

02925 2A81 1E40 LD E,40H

02926 ;

02927 2AB3 > DOJOYSA2 EQU \$  
 02928 2AB3 CDFD2A > CALL DOJOYMOV  
 02929 2AB6 DD21C14E> LD IX,VCEND4  
 02930 2ABA C0872A > CALL DOJOYSAV  
 02931 2ABD EF RST NUNP ; GET # OF PLAYERS (2 OR 4)  
 02932 2ABE C0 RET NZ  
 02933 2ABF DD21AE4E> LD IX,VCEND3  
 02934 2AC3 18C2 JR DOJOYSAV

02936 ; DOJOY2 -- JOYSTICK 2 TRANSITION PROCESSOR  
 02937 ;  
 02938 2AC5 > DOJOY2 EQU \$  
 02939 2AC5 EF RST NUNP ; GET # OF PLAYERS (2 OR 4)  
 02940 2AC6 C8 RET Z  
 02941 2AC7 D7 RST CMAG ; GET LINE OF SCRIMMAGE MAGIC REG.  
 02942 2AC8 2016 JR NZ,L2AF0  
 02943 ;  
 02944 2ACA > L2ACA EQU \$  
 02945 2ACA 110001 LD DE,0100H  
 02946 2ACD F7 RST 030H  
 02947 2ACE 2B02 JR Z,L2AD2  
 02948 2AD0 1E40 LD E,40H  
 02949 ;  
 02950 2AD2 > L2AD2 EQU \$  
 02951 2AD2 CDFD2A > CALL DOJOYMOV  
 02952 2AD5 DD21984E> LD IX,VCEND2  
 02953 2AD9 18AC JR DOJOYSAV

02955 ; DOJOY3 -- JOYSTICK 3 TRANSITION HANDLER  
 02956 ;  
 02957 2ADR > DOJOY3 EQU \$  
 02958 2ADB EF RST NUNP ; GET # OF PLAYERS (2 OR 4)  
 02959 2ADC C8 RET Z  
 02960 2ADD D7 RST CMAG ; GET LINE OF SCRIMMAGE MAGIC REG.  
 02961 2ADE 20EA JR NZ,L2ACA  
 02962 ;  
 02963 2AE0 > L2AE0 EQU \$  
 02964 2AE0 110001 LD DE,0100H  
 02965 2AE3 F7 RST 030H  
 02966 2AE4 200E JR NZ,L2AF4  
 02967 2AE6 2A7F4E > LD HL,(MUSICWKK)  
 02968 2AE9 23 INC HL  
 02969 2AEA C86E BIT S,(HL)  
 02970 2AEC 2006 JR NZ,L2AF4  
 02971 2AEE C85E BIT J,(HL)  
 02972 2AF0 2002 JR NZ,L2AF4  
 02973 2AF2 1E40 LD E,40H  
 02974 ;

```

02975 2AF4 > L2AF4 ERU $
02976 2AF4 CDFD2A > CALL DOJYMOV
02977 2AF7 D021AE4E > LD IX, VCTENDJ3
02978 2AFB 18BA JR DUJOYSAV
  
```

```

02980 ; DOJYMOV. -- CONVERTS MASK TO DELTAS
02981 ;
02982 ; UPON ENTRANCE: A = MK (FLOP FLAG)
02983 ; B = JOYSTICK MASK
02984 ; DE = POSITIVE X DELTA
02985 ; HL = POSITIVE Y DELTA
02986 ;
02987 > DOJYMOV EQU $ CMAG ; GET LINE OF SCRIMMAGE MAGIC REG.
02988 2AFD D7 RST
02989 ;
02990 > NEWDELTA EQU $
02991 2AFE 4F LD C,A ; MR
02992 2AFF 62 LD H,D ; SET Y = X DELTA
02993 2B00 6B LD L,E
02994 ;
02995 SYSTEM MSKTD ; CONVERT MASK TO DELTAS
      RST 38H
      BYTE MSKTD
      RET
02996 2B03 C9
  
```

```

02998 ;
02999 ; SETOFFA -- SETS FLAGS TO INDICATE PLAYER A IS OFFENSE
03000 ;
03001 > SETOFFA EQU $
03002 2B04 CRF6 SET 6,(HL)
03003 2B06 CRRE RES 7,(HL)
03004 2B08 23 INC HL ; RESET SPECIAL PLAY GROUP FLAG
03005 2B09 AF XOR A ; RUMP PTR. TO MR FOR LINE OF SCRIMMAGE
03006 2B0A 77 LD (HL),A ; A=0
03007 2B0B 2B DEC HL ; ZERO MK (ALSO, OFFENSIVE)
03008 2B0C C9 RET ; BACK TO ORIGINAL
03009 ;
03010 ; SETOFFB -- SETS FLAGS TO INDICATE PLAYER B IS OFFENSE
03011 ;
03012 > SETOFFB EQU $
03013 2B0D CRF6 SET 6,(HL)
03014 2B0F CRFE SET 7,(HL)
03015 2B11 23 INC HL ; INDICATE SPECIAL PLAY GROUP
03016 2B12 3E40 LD A,40H ; RUMP TO LINE OF SCRIMMAGE MK
03017 2B14 77 LD (HL),A ; MK = FLOP (INDICATES OFFENSE)
03018 2B15 2B DEC HL
03019 2B16 C9 RET
  
```

```

03021 *****
03022 *
03023 * * RESTART PROCESSORS
03024 * *
03025 *
03026 *
03027 * RST 10 PROCESSOR -- RETURNS MAGIC REG. FOR CURRENT LINE OF SCRIMMAGE
03028 * (MRFLOP - WHO HAS THE BALL...)
03029 *
03030 * Z = PLAYER A
03031 * NZ = PLAYER B
03032 *
03033 *
03034 > RST10 EQU $
03035 2R17 3AC14F > LD A,(LSMAGIC)
03036 2R1A B7 OR A
03037 2R1B C9 RET
03038
03039 * RST 18 PROCESSOR -- PAINTS A RECTANGLE
03040 *
03041 > RST18 EQU $
03042 2B1C > RST18 SYSTEM RECTAN I PAINT RECTANGLE
03043 2R1D 1C + RST 38H
03044 2R1E C9 RET
03045
03046 * RST 20 PROCESSOR -- INDEX A WORD
03047 > RST20 EQU $
03048 2R1F FF SYSTEM INDEXW I INDEX WORD
03049 2R20 SA RST 38H
03050 2R21 C9 RET
03051
03052 * RST 28 PROCESSOR -- RETURNS NO. OF PLAYERS
03053 *
03054 * Z FLAG = 2-PLAYER VERSION
03055 * NZ FLAG = 4-PLAYER VERSION
03056 > RST28 EQU $
03057 2R22 3A814E > LD A,(NUMPLAYR)
03058 2R25 B7 OR A
03059 2R26 C9 RET
03060
03061 * RST 30 PROCESSOR --
03062 *
03063 > RST30 EQU $
03064 2R27 3A824E > LD A,(L4E82)
03065 2R2A B7 OR A
03066 2R2B C9 RET
  
```

```

03068 ; DOCT7 -- COUNTER-TIMER 7 TRANSITION PROCESSOR
03069 ;
03070 2R2C > DOCT7 EQU $
03071 2R2C 210C4F > LD HL,CT7
03072 2R2F 3620 > LD (HL),32 ; RESET CT7
03073 2R31 21934F > LD HL,VCTLIND4+VBRSTAT
03074 2R34 CRCE SET 1,(HL)
03075 2R36 CF RST QORF ; IS VECTOR QUARTERBACK OR FOOTBALL?
03076 2R37 2813 JR Z,DOCT7C ; QUARTERBACK
03077 ;
03078 ; IT IS THE BALL, START EVERYONE MOVING
03079 ;
03080 2R39 21894E > LD HL,VCTENN1+VBRSTAT
03081 2R3C 0610 LD R,16 ; 16 VECTORS
03082 2R3E 3E0C LD A,12
03083 2R40 111300 LD DE,VECTSZ
03084
03085 2R43 > DOCT7A EQU $
03086 2R43 B8 CP B
03087 2R44 2802 JR Z,DOCT7B ; ACTIVATE THIS VECTOR
03088 2R46 C8FE SET VBRSTAT,(HL)
03089 ;
03090 2R48 > DOCT7B EQU $
03091 2R48 19 ADD HL,DL
03092 2R49 10FB DJNZ DOCT7A
03093 2R4B C9 RET
03094 ;
03095 2R4C > DOCT7C EQU $
03096 2R4C DD2A7F4E > LD IX,(MUSICWRK)
03097 2R50 DDCR0146 BIT 0,(IX+VBRSTAT)
03098 2R54 C0 RET NZ
03099 2R55 DD6606 LD H,(IX+VBRXH)
03100 2R58 DD6E08 LD L,(IX+VBRXH)
03101 2R5B DD21924F > LD IX,VCTLIND4
03102 2R5F 0600 LD R,0 ; SET JOYSTICK MASK TO NO EVENT
03103 2R61 DD7E06 LD A,(IX+VBRXH)
03104 2R64 BC CP H
03105 2R65 3804 JK C,DOCT7D ; SET 'LEFT' BIT
03106 2R67 C8D0 SET 2,B
03107 2R69 1802 JK DOCT7E
03108 ;
03109 2R6B > DOCT7D EQU $
03110 2R6B C8D8 SET 3,B ; SET 'RIGHT' BIT
03111 ;
03112 2R6D > DOCT7E EQU $
03113 2R6D DD7E08 LD A,(IX+VBRXH)
03114 2R70 BD CP L
03115 2R71 3804 JR C,DOCT7F
03116 2R73 C8C0 SET 0,B ; SET 'UP' BIT
03117 2R75 1802 JR DOCT7G
03118 ;
03119 2R77 > DOCT7F EQU $

```

```

03120 2877 CRC8      SET      1,B      ; SET 'DOWN' BIT
03121
03122      2879 > DOCT78 EQU      $
03123 2879 110001    LD      DE,0100H ; DELTA OF 1.00
03124 287C AF      XOR      A      ; MR
03125 287D CDFE2A > CALL     NEWDELTA ; SET NEW DELTAS
03126 2880 C3872A > JP      DOJOSAV  ; AND SAVE IT
  
```

```

03128      ;
03129      ; RST 08 PRDCESSOR -- RETURNS STATUS OF UTRACK/FOOTBALL VECTOR
03130      ;
03131      ; UPON RETURN: HL--> QTRBACK/FOOTBALL VECTOR + VRXCHK
03132      ; Z = QUARTERBACK
03133      ; NZ = FOOTBALL
03134      ;
03135      2883 > RST08 EQU      $
03136 2883 21084E > LD      HL,VC10QTRB+VRXCHK
03137 2886 CR7E    BIT      7,(HL)
03138 2888 C9     RET
  
```

```

03140 *****
03141 *
03142 * PLAY GROUP TABLES, ETC.
03143 *
03144 *****
03145 *
03146 *
03147 * PLAY GROUP 1
03148 *
03149 > FGROUP1 EQU $
03150 2889 2889 6A2D > L.SCREEN | 1. SCREEN PASS
03151 2888 5C2D > L.SLANT | 2. SLANT IN PASS
03152 288D 4B2D > L.LMIDFS | 3. LONG MIDDLE PASS
03153 288F 762D > L.CROSS | 4. CROSSING PASS
03154 2891 3C2D > L.SIDELN | 5. SIDELINE PASS
03155 *
03156 > FGROUP1P EQU $
03157 2893 C52B > FLAYTAR | 1
03158 2895 CB2B > L2RCR | 2
03159 2897 CF2B > L2RCF | 3
03160 2899 D12B > L2RD1 | 4
03161 289B C72B > L2RC7 | 5
03162 *
03163 * PLAY GROUP 2
03164 *
03165 > FGROUP2 EQU $
03166 289D 322D > L.LONGRM | 1. LONG ROMR
03167 289F 4B2D > L.LMIDFS | 2. LONG MIDDLE PASS
03168 28A1 762D > L.LKUSS | 3. CROSSING PASS
03169 28A3 842D > L.RAZZLE | 4. RAZZLE DAZZLE
03170 28A5 3C2D > L.SIDELN | 5. SIDELINE PASS
03171 *
03172 > FGROUP2P EQU $
03173 28A7 D92B > L28D9 | 1
03174 28A9 CF2B > L2RCF | 2
03175 28AB D12B > L28D1 | 3
03176 28AD DD2B > L28D0 | 4
03177 28AF C72B > L28L7 | 5
03178 *
03179 * PLAY GROUP 3
03180 *
03181 > FGROUP3 EQU $
03182 28B1 6A2D > L.SCREEN | 1. SCREEN PASS
03183 28B3 202D > L.SHIDFS | 2. SHORT MIDDLE PASS
03184 28B5 5C2D > L.SLANT | 3. SLANT IN PASS
03185 28B7 3C2D > L.SIDELN | 4. SIDELINE PASS
03186 28B9 112D > L.AROUND | 5. AROUND END RUN
03187 *
03188 > FGROUP3P EQU $
03189 28BB C52B > FLAYTAR | 1
03190 28BD CD2B > L28CD | 2
03191 28BF CB2B > L28CB | 3

```

03192	28C1	C72B	>	WORD	L28C7	4
03193	28C3	D52B	>	WORD	L28D5	5
03194						
03195	28C5		>	PLAYTAB		
03196	28C5	7D2C	>	WORD	L2C7D	SCREEN PASS
03197	28C7	772C	>	WORD	L2C77	SIDELINE PASS
03198	28C9	682C	>	WORD	L2C6B	
03199	28C8	742C	>	WORD	L2C74	SLANT IN PASS
03200	28C0	5F2C	>	WORD	L2C5F	SHORT MIDDLE PASS
03201	28CF	5C2C	>	WORD	L2C5C	LONG MIDDLE PASS
03202	28D1	712C	>	WORD	L2C71	CROSSING PASS
03203	28D3	682C	>	WORD	L2C68	
03204	28D5	652C	>	WORD	L2C65	AROUND END RUN
03205	28D7	6E2C	>	WORD	L2C6E	
03206	28D9	682C	>	WORD	L2C68	LONG BUMB
03207	28D8	682C	>	WORD	L2C68	LONG BUMB
03208	28D0	862C	>	WORD	L2C86	RAZZLE DAZZLE
03209	28DF	682C	>	WORD	L2C68	

03211			>	LINEMEN & QUARTERBACK PLAY POINTERS		
03212			>			
03213	28E1	502C	>	OFFPAT1	EQU	OFFENSIVE PATTERN 1
03214	28E1	502C	>	WORD	PLAY02	QTRBACK
03215	28E3	8F2C	>	WORD	L2C8F	BOTTOM END
03216	28E5	922C	>	WORD	L2C92	TOP
03217	28E7	922C	>	WORD	L2C92	BOTTOM
03218	28E9	922C	>	WORD	L2C92	TOP
03219	28E8	8F2C	>	WORD	L2C8F	BOTTOM
03220			>			
03221	28ED		>	OFFPAT2	EQU	
03222	28ED	502C	>	WORD	PLAY02	
03223	28EF	682C	>	WORD	L2C68	
03224	28F1	682C	>	WORD	L2C68	
03225	28F3	682C	>	WORD	L2C68	
03226	28F5	682C	>	WORD	L2C68	
03227	28F7	682C	>	WORD	L2C68	
03228			>			
03229	28F9		>	DEFNSPAT	EQU	DEFENSIVE PATTERNS
03230	28F9	592C	>	WORD	L2C59	
03231	28FB	592C	>	WORD	L2C59	
03232	28FD	592C	>	WORD	L2C59	
03233	28FF	592C	>	WORD	L2C59	
03234	2C01	952C	>	WORD	L2C95	
03235	2C03	592C	>	WORD	L2C59	

03237			>	SCRIMMAGE PATTERN POSITION TABLES		
03238			>			
03239			>			

```

03240      |
03241      | POSTAR1 EQU $
03242 2C05 FA12  | BYTE -6,18 | OFFENSIVE TOP END
03243 2C07 C22C  | WORD G.END02 | PATTERN 2
03244      |
03245 2C09 FA40  | BYTE -6,64 | OFFENSIVE BOTTOM END
03246 2C0B C22C  | WORD G.END02 | PATTERN 2
03247      |
03248 2C0D 1240  | BYTE 18,64 | DEFENSIVE BOTTOM END
03249 2C0F CA2C  | WORD G.END03 | PATTERN 3
03250      |
03251 2C11 1214  | BYTE 18,20 | DEFENSIVE TOP END
03252 2C13 CA2C  | WORD G.END03 | PATTERN 3
03253      |
03254      | QUARTERBACK POSITION (IN SNAP POSITION)
03255      |
03256      | POSTAR2 EQU $
03257 2C15 EC2D  | BYTE -20,45
03258 2C17 1B2F  | WORD G.OTRSNP | PATTERN
03259      |
03259 2C19 FA22  | EQU $
03260 2C19 FA22  | BYTE -6,34
03261 2C1B B02C  | WORD G.OLINEM | LINEMAN PATTERN
03262      |
03262 2C1D FA28  | BYTE -6,40
03263 2C1F B02C  | WORD G.OLINEM | LINEMAN
03264      |
03264 2C1F B02C  |
03265      |
03266 2C21 FA2E  | BYTE -6,46
03267 2C23 B02C  | WORD G.OLINEM
03268      |
03268 2C25 FA34  | BYTE -6,52
03269 2C27 B02C  | WORD G.OLINEM
03270      |
03271      |
03272 2C29 FA3A  | BYTE -6,58
03273 2C2B B02C  | WORD G.OLINEM
03274      |
03274      | DEFENSIVE LINEMEN POSITIONS
03275      |
03276      |
03277      | POSTAR4 EQU $
03278 2C2D 2C2D  | BYTE 3,34
03279 2C2F B52C  | WORD G.OLINEM | LINEMAN
03280      |
03280 2C31 0328  | BYTE 3,40
03281 2C33 B52C  | WORD G.OLINEM
03282      |
03283      |
03284 2C35 0334  | BYTE 3,52
03285 2C37 B52C  | WORD G.OLINEM
03286      |
03286 2C39 033A  | BYTE 3,58
03287 2C3B B52C  | WORD G.OLINEM
03288      |
03289      |
03290 2C3D 0B2D  | BYTE 11,45
03291 2C3F CA2C  | WORD G.END03 | DEFENSIVE END
  
```

```

03292      |
03293 2C41 032E      | BYTE      3746
03294 2C43 B52C      | WORD      G.DLINIEM
03295      |
03296      |
03297      | 2C45      | $      | FLANKER POSITIONS
03298 2C45 F517      | BYTE     -11,23
03299 2C47 C22C      | WORD     G.END02  | OFFENSIVE END
03300      |
03301 2C49 FA40      | BYTE     -6764
03302 2C4B C22C      | WORD     G.END02
03303      |
  
```

```

03305 ;
03306 ; PLAY MOVEMENT PATTERNS TABLE
03307 ;
03308 ; EACH 3-BYTE ENTRY IS IN THE FOLLOWING FORMAT:
03309 ;
03310 ;
03311 ; -----
03312 ; | TIME | DELTA | DELTA |
03313 ; | BASE | X | Y |
03314 ; -----
03315 ;
03316 ; MOVE OF A FIGURE IS DIRECTED BY ENTRIES FROM THE TABLE UNTIL
03317 ; AN ENTRY WITH A TIME BASE OF 0 IS ENCOUNTERED. JOYSTICK CONTROL
03318 ; TAKES OVER THEN.
03319 ;
03320 2C4D 0003FD PLAY01 BYTE 0,3,-3
03321 2C50 0004FE PLAY02 BYTE 0,4,-2
03322 2C53 000400 PLAY03 BYTE 0,4,0
03323 2C56 000402 PLAY04 BYTE 0,4,2
03324 2C59 000303 L2C59 BYTE 0,3,3
03325 2C5C 00FF00 L2C5C BYTE 0,-1,0
03326 2C5F 140100 L2C5F BYTE 20,1,0
03327 2C62 140100 L2C62 BYTE 20,1,0
03328 2C65 140100 L2C65 BYTE 20,1,0
03329 2C68 280001 L2C68 BYTE 40,0,1
03330 2C6B 000100 L2C6B BYTE 0,1,0
03331 2C6E 140100 L2C6E BYTE 20,1,0
03332 2C71 0001FF L2C71 BYTE 0,1,-1
03333 2C74 140100 L2C74 BYTE 20,1,0
03334 2C77 000101 L2C77 BYTE 0,1,1
03335 2C7A 140100 L2C7A BYTE 20,1,0
03336 2C7D 0000FF L2C7D BYTE 0,0,-1
03337 2C80 05FF00 L2C80 BYTE 5,-1,0
03338 2C83 0A0000 L2C83 BYTE 10,0,0
03339 2C86 000100 L2C86 BYTE 0,1,0
03340 2C89 0501FF L2C89 BYTE 5,1,-1
03341 2C8C 0A0101 L2C8C BYTE 10,1,1
03342 2C8F 0001FF L2C8F BYTE 0,1,-1
03343 2C92 02FF00 L2C92 BYTE 2,-1,0
03344 2C95 02FF00 L2C95 BYTE 2,-1,0
03345 2C98 000000 PLAYPUNT BYTE 0,0,0
03346 0A03FD L2C9B BYTE 4,3,-3
03347 2C9E 0R03FE BYTE 11,3,-2
03348 2CA1 050400 BYTE 5,4,0
03349 2CA4 0R0302 BYTE 11,3,2
03350 2CA7 0A0303 BYTE 4,3,3
03351 2CAA 000000 BYTE 0,0,0
  
```

```

03353 *****
03354 *
03355 * GRAPHIC PATTERNS
03356 *
03357 *
03358 *
03359 * FOOTBALL IN MOTION
03360 *
03361 > G.FTBALL EQU $
03362 2CAD 0101 BYTE 1,1
03363 2CAF F0 BYTE 11110000R ; e e . .
03364 *
03365 * LINEMAN FACING RIGHT
03366 *
03367 > G.OLINEM EQU $
03368 2CR0 0103 BYTE 1,3
03369 2CR2 44 BYTE 01000100R ; e . e .
03370 2CR3 15 BYTE 00010101M ; . e e e
03371 2CR4 44 BYTE 01000100R ; e . e .
03372 *
03373 * LINEMAN FACING LEFT
03374 *
03375 > G.DLINEM EQU $
03376 2CR5 0103 BYTE 1,3
03377 2CR7 22 BYTE 00000000R ; . e . e
03378 2CR8 A8 BYTE 00000000R ; e e e .
03379 2CR9 22 BYTE 00000000R ; . e . e
03380 *
03381 * END PATTERN 1
03382 *
03383 > G.END01 EQU $
03384 2CRA 0106 BYTE 1,6
03385 2CRC 10 BYTE 00010000R ; . e . .
03386 2CRD 54 BYTE 01010100R ; e e e .
03387 2CRE 50 BYTE 01010000R ; e e . .
03388 2CRF 54 BYTE 01010100R ; e e e .
03389 2CC0 45 BYTE 01000101R ; e . e e
03390 2CC1 40 BYTE 01000000R ; e . . .
03391 *
03392 * END PATTERN 2
03393 *
03394 > G.END02 EQU $
03395 2CC2 0106 BYTE 1,6
03396 2CC4 04 BYTE 00000100R ; . . e .
03397 2CC5 14 BYTE 00010100R ; . e e .
03398 2CC6 15 BYTE 00010101R ; . e e e
03399 2CC7 54 BYTE 01010100R ; e e e .
03400 2CC8 44 BYTE 01000100B ; e . e .
03401 2CC9 04 BYTE 00000100R ; . . . e .
03402 *
03403 * END PATTERN 3
03404 *

```

```

03405 2CCA > G.END03 EQU $ 1,6
03406 2CCA 0106 BYTE
03407 2CCC 08 BYTE
03408 2CCD 2A BYTE
03409 2CCE 0A BYTE
03410 2CCF 2A BYTE
03411 2CD0 A2 BYTE
03412 2CD1 02 BYTE
03413 ;
03414 ; END PATTERN 4
03415 ;
03416 2CD2 > G.END04 EQU $ 1,6
03417 2CD2 0106 BYTE
03418 2CD4 20 BYTE
03419 2CD5 28 BYTE
03420 2CD6 A8 BYTE
03421 2CD7 2A BYTE
03422 2CD8 22 BYTE
03423 2CD9 20 BYTE
03424 ;
03425 ; END PATTERN 5
03426 ;
03427 2CDA > G.END05 EQU $ 1,6
03428 2CDA 0106 BYTE
03429 2CDC 10 BYTE
03430 2CDD 54 BYTE
03431 2CDE 5F BYTE
03432 2CDF 54 BYTE
03433 2CE0 45 BYTE
03434 2CE1 40 BYTE
03435 ;
03436 ; END PATTERN 6
03437 ;
03438 2CE2 > G.END06 EQU $ 1,6
03439 2CE2 0106 BYTE
03440 2CE4 04 BYTE
03441 2CE5 14 BYTE
03442 2CE6 15 BYTE
03443 2CE7 5F BYTE
03444 2CE8 44 BYTE
03445 2CE9 04 BYTE
03446 ;
03447 ; END PATTERN 7
03448 ;
03449 2CEA > G.END07 EQU $ 1,6
03450 2CEA 0106 BYTE
03451 2CEC 08 BYTE
03452 2CED 2A BYTE
03453 2CEE FA BYTE
03454 2CEF 2A BYTE
03455 2CF0 A2 BYTE
03456 2CF1 02 BYTE
    
```

```
03457 ;  
03458 ; END PATTERN 8  
03459 ;  
03460 2CF2 > G.END08 EQU 1,6  
03461 2CF2 0106 RYTE 00100000R ; . e . .  
03462 2CF4 20 RYTE 00101000R ; . e e .  
03463 2CF5 28 RYTE 10101000R ; e e e .  
03464 2CF6 A8 RYTE 11111010R ; e e e e  
03465 2CF7 FA RYTE 00100010R ; . e . e  
03466 2CF8 22 RYTE 00100000R ; . e . .  
03467 2CF9 20
```

```

03469 *****
03470 ;*
03471 ;* STRINGS FOR PLAYS, TITLES, ETC....
03472 ;*
03473 ;
03474 L.TCHDWN BSTRING 'TOUCHDOWN'
          ASCII 'TOUCHDOWN'

2CFA 544F5543 +
2CFE 48444F57
2D02 4E
2D03 00

03475          BYTE 0
          L.SAFETY BSTRING 'SAFETY'
          ASCII 'SAFETY'

2D04 53414645 +
2D08 5459
2D0A 00

03476          BYTE 0
          L.PLAYS BSTRING 'PLAYS'
          ASCII 'PLAYS'

2D08 504C4159 +
2D0F 53
2D10 00

03477          BYTE 0
          ; PLAYS
          ;

03478          ;
03479          ;
03480          L.AROUND BSTRING 'AROUND END RUN'
          ASCII 'AROUND END RUN'

2D11 41524F55 +
2D15 4E442045
2D19 4E442052
2D1D 554E
2D1F 00

03481          BYTE 0
          L.SMIDFS BSTRING 'SHORT MIDDLE PASS'
          ASCII 'SHORT MIDDLE PASS'

2D20 53484F52 +
2D24 54204D49
2D28 44444C45
2D2C 20504153
2D30 53
2D31 00

03482          BYTE 0
          L.LONGERH BSTRING 'LONG BOMB'
          ASCII 'LONG BOMB'

2D32 4C4F4E47 +
2D36 20424F4D
2D3A 42
2D3B 00

03483          BYTE 0
          L.SIDELN BSTRING 'SIDE LINE PASS'
          ASCII 'SIDE LINE PASS'

2D3C 53494445 +
2D40 204C494E
2D44 45205041
2D48 5353
2D4A 00

03484          BYTE 0
          L.LMIDFS BSTRING 'LONG MIDDLE PASS'
          ASCII 'LONG MIDDLE PASS'

2D4B 4C4F4E47 +
2D4F 204D4944
2D53 444C4520
2D57 50415353
2D5B 00

03485          BYTE 0
          L.SLANT BSTRING 'SLANT IN PASS'
          ASCII 'SLANT IN PASS'
  
```

2D5C	534C414E +	ASCII	*SLANT IN PASS*
2D60	5420494E		
2D64	20504153		
2D68	53		
2D69	00	BYTE	0
03486		L.SCREEN RSTRING	*SCREEN PASS*
2D6A	53435245 +	ASCII	*SCREEN PASS*
2D6E	454E2050		
2D72	413353		
2D75	00	BYTE	0
03487		L.CROSS RSTRING	*CROSSING PASS*
2D76	43524F53 +	ASCII	*CROSSING PASS*
2D7A	53494E47		
2D7E	20504153		
2D82	53		
2D83	00	BYTE	0
03488		L.RAZZLE RSTRING	*RAZZLE DAZZLE*
2D84	52415A5A +	ASCII	*RAZZLE DAZZLE*
2D88	4C452044		
2D8C	415A5A4C		
2D90	45		
2D91	00	BYTE	0
03489		MISC. STRINGS	
03490			
03491			
03492		L.FOOTBL RSTRING	*FOOTBALL*
2D92	464FAF54 +	ASCII	*FOOTBALL*
2D96	42414C4C		
2D9A	00	BYTE	0
03493		L.FUNT RSTRING	*FUNT*
2D98	50554E54 +	ASCII	*FUNT*
2D9F	00	BYTE	0
03494		L.TIME RSTRING	*TIME*
2DA0	54494D45 +	ASCII	*TIME*
2DA4	00	BYTE	0
03495		L.2PLAYR RSTRING	*FOOTBALL 2-FLYR*
2DA5	464FAF54 +	ASCII	*FOOTBALL 2-FLYR*
2DA9	42414C4C		
2DAD	20322D50		
2DB1	4C5952		
2DB4	00	BYTE	0
03496		L.4PLAYR RSTRING	*FOOTBALL 4-FLYR*
2DB5	464FAF54 +	ASCII	*FOOTBALL 4-FLYR*
2DB9	42414C4C		
2DBD	20342D50		
2DC1	4C5952		
2DC4	00	BYTE	0
03497		L.YARD60 RSTRING	*YARDS TO GO*
2DC5	59415244 +	ASCII	*YARDS TO GO*
2DC9	5320544F		
2DCD	20474F		
2DD0	00	BYTE	0

03498	2DD1 444F574E +	L.DOWN	RSTRING	"DOWN"
	2DD5 00		ASCII	"DOWN"
			RYTE	0
03499	2DD6 454E44 +	L.END	RSTRING	"END"
	2DD9 00		ASCII	"END"
			RYTE	0
03500	2DDA 42414C4C +	L.BALLON	RSTRING	"BALL ON"
	2DDE 204F4E		ASCII	"BALL ON"
	2DE1 00		RYTE	0

```

*****
**
** VECTOR INITIALIZATION SKELETON
**
03502
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```

Address	Label	Value	Comment
03509	VECTSKEL EQU.		
03510	2DE2 20	20H	0 - VBRM - MAGIC REGISTER (20H = XOR)
03511	2DE3 80	80H	1 - URSTAT - STATUS REGISTER (ACTIVE)
03512	2DE4 00	0	2 - URTIMR - TIME BASE
03513	2DE5 00	0	3 - VROXL - DELTA X LO
03514	2DE6 00	0	4 - VROXH - DELTA X HI
03515	2DE7 00	0	5 - VRXL - X COORDINATE LO
03516	2DE8 00	0	6 - VRXH - X COORDINATE HI
03517	2DE9 01	1	7 - VRXCHK - X CHECK FLAGS (LIMIT CHECK)
03518	2DEA 00	0	8 - VRYL - DELTA Y LO
03519	2DEB 00	0	9 - VRYH - DELTA Y HI
03520	2DEC 00	0	10 - VRYL - Y COORDINATE LO
03521	2DED 00	0	11 - VRYH - Y COORDINATE HI
03522	2DEE 03	3	12 - VRXCHK - X CHECK FLAGS (LIMIT CHECK, REVERSE DELTA)
03523	2DEF 00	0	13 - VROAL - OLD ADDR. LO
03524	2DF0 00	0	14 - VROAH - OLD ADDR. HI
03525	2DF1 00	0	15 -
03526	2DF2 00	0	16 -
03527	2DF3 01	1	17 -
03528	2DF4 00	0	18 -

Address	Label	Value	Description
03530			! COLOR LISTS (USED WHEN SCREEN CHANGES NEEDED)
03531			! EQU
03532			! EQU
03533	COLIST1	\$	! COLOR LIST
03534	2DF5 F87F7A3	248,119,247,163	BYTE
03535			! EQU
03536	COLIST2	\$	! COLOR LIST
03537	2DF9 F87F7A1	248,119,247,161	BYTE
03538			! EQU
03539	COLIST3	\$	! COLOR LIST
03540	2DFD F87F7A3	248,119,247,163	BYTE
03541			! EQU
03542	COLIST4	\$	! COLOR LIST
03543	2E01 F8F777A3	248,247,119,163	BYTE
03544			! EQU
03545	COLIST5	\$	! COLOR LIST
03546	2E05 F8F777A1	248,247,119,161	BYTE
03547			! EQU
03548	COLIST6	\$	! COLOR LIST
03549	2E09 F8F777A3	248,247,119,163	BYTE
03550			! EQU
03551	COLIST7	\$	! COLOR LIST
03552	2E0D F87F7A3	248,119,247,163	BYTE

Address	Label	Value	Description
03554			! TABLE OF PLAYER VECTORS
03555			! EQU
03556	VECTAB1	\$	VCTLIND5,VCTLIND4,VCTLIND4,VCTLIND2
03557	2E11 33AF204F>		WORD
03558	2E15 92AF6C4F>		WORD
03559	2E19 984EC14E>		WORD
03560	2E21 594FAE4E>		WORD
03561	2E25 D44EFA4E>		WORD
03562	2E29 7F4FA54F>		WORD
03563			! EQU
03564	VECTAB2	\$	VCTLIND4,VCTEND4
03565	2E2D 924FC14E>		WORD
03566	2E31 AE4E9B4E>		WORD
03567	2E35 884E464F>		WORD
03568	2E39 E7AED44E>		WORD

Address	Label	Value	Description
03567			! TABLE OF PLAY GROUP SELECTION HANDLER (BASED ON DOWN #)
03568			! EQU
03569	L2E3D	\$	DOWN1,DOWN2,DOWN3,DOWN4
03570	2E3D 17221C22>		WORD
03571	2E41 28222D22>		WORD

! YARDSTAR -- TABLE OF ECD VALUES FOR THE PLAY FIELD (10-YARD INC.)

03572	!			
03573	!			
03574	!			
03575	!	2E45	YARDSTAR EQU	\$
03576	2E45	0000	RYTE	0,0
03577	2E47	10203040	RYTE	10H,20H,30H,40H
03578	2E4B	50403020	RYTE	50H,40H,30H,20H
03579	2E4F	100000	RYTE	10H,0,0



03633	2E9A	4410	BYTE	01000100R,00010000R	! e . e . . e . . .
03634	2E9C	5540	BYTE	01010101R,01000000R	! e e e e e . . .
03635	2E9E	1400	BYTE	00010100R,00000000R	! . e e . . . . .
03636	2EA0	1400	BYTE	00010100R,00000000R	! . e e . . . . .
03637	2EA2	1500	BYTE	00010101R,00000000R	! . e e e . . . . .
03638	2EA4	1140	BYTE	00010001R,01000000R	! . e . e e . . . .
03639					
03640	2E46		! EQU		
03641	2EA6	0207	! EQU		
03642	2EAB	F000	! EQU		
03643	2EAA	4410	! EQU		
03644	2EAC	5540	! EQU		
03645	2EAE	1400	! EQU		
03646	2ER0	1400	! EQU		
03647	2ER2	5400	! EQU		
03648	2ER4	4400	! EQU		
03649					
03650	2ER6		! EQU		
03651	2ER6	0207	! EQU		
03652	2ER8	F000	! EQU		
03653	2ERA	4400	! EQU		
03654	2ERC	5550	! EQU		
03655	2ERE	1400	! EQU		
03656	2ECO	1400	! EQU		
03657	2EC2	1500	! EQU		
03658	2ECA	1140	! EQU		
03659					
03660	2EC6		! EQU		
03661	2EC6	0207	! EQU		
03662	2EC8	F000	! EQU		
03663	2ECA	4400	! EQU		
03664	2ECC	5550	! EQU		
03665	2ECE	1400	! EQU		
03666	2ED0	1400	! EQU		
03667	2ED2	5400	! EQU		
03668	2ED4	4400	! EQU		
03669					
03670	2ED6		! EQU		
03671	2ED6	0207	! EQU		
03672	2ED8	F000	! EQU		
03673	2EDA	4400	! EQU		
03674	2EDC	5540	! EQU		
03675	2EDE	1410	! EQU		
03676	2EE0	1400	! EQU		
03677	2EE2	1400	! EQU		
03678	2EE4	1500	! EQU		
03679	2EE6	1140	! EQU		
03680					
03681	2EE6		! EQU		
03682	2EE8	0207	! EQU		
03683	2EEA	F000	! EQU		
03684	2EEC	4400	! EQU		

*Handwritten:* **ERROR**

*Handwritten:* ALL ADDRESSES FROM HERE ARE - 2 BYTES

*Handwritten:* DEFINES

*Handwritten:* -1500

*Handwritten:* 1140



		*****			
		**		PLAYER INPUT TRANSITION TABLE	
03721	2F26	>	DOTABLE	ERU	\$
03722	2F26 4B	+		RC	SCT7,DOCT7 ; CT7
03723	2F27 2C2B	>+		BYTE	SCT7+40H
03724				WORD	DOCT7
03725	2F29 54	+		RC	ST0,DOTRIGO ; TRIGGER 0
03726	2F2A A029	>+		BYTE	ST0+40H
03727				WORD	DOTRIGO
03728	2F2C 56	+		RC	ST1,DOTRIG1 ; TRIGGER 1
03729	2F2D 9C29	>+		BYTE	ST1+40H
03730	2F2F 5C	+		WORD	DOTRIG1
03731	2F30 9C29	>+		RC	SF0,DOTRIG1 ; POT. 0
03732	2F32 5D	+		BYTE	SF0+40H
03733	2F33 5629	>+		WORD	DOTRIG1
03734	2F35 55	+		RC	SF1,DOKNOB1 ; POT. 1
03735	2F36 652A	>+		BYTE	SF1+40H
03736	2F38 59	+		WORD	DOKNOB1
03737	2F39 C52A	>+		RC	SJ0,DOJOY0 ; JOYSTICK 0
03738	2F3B 5B	+		BYTE	SJ0+40H
03739	2F3C DB2A	>+		WORD	DOJOY0
03740	2F3E 57	+		RC	SJ2,DOJOY2 ; JOYSTICK 2
03741	2F3F 992A	>+		BYTE	SJ2+40H
03742	2F41 C0			WORD	DOJOY2
				RC	SJ3,DOJOY3 ; JOYSTICK 3
				BYTE	SJ3+40H
				WORD	DOJOY3
				RC	SJ1,DOJOY1 ; JOYSTICK 1
				BYTE	SJ1+40H
				WORD	DOJOY1
				STOP	
				BYTE	OC0H

*Handwritten notes:*  
 S  
 B  
 J

03738	*****									
03739	IX									
03740	IX	MUSIC SCORES								
03741	IX									
03742	;	NATIONAL ANTHEM								
03743	;									
03744	;									
03745	2F42	> ANTHEM	32							
03746		MASTER	80H,32	;	32					
	2F42	8020	VOLUME	OCCH,OFH	;	A,B=12, C=15				
	2F44	80	BYTE	OROH						
	2F45	CC	BYTE	OCCH		;	B, A			
	2F46	OF	BYTE	OFH		;	M, C			
03748			NOTE3	12,G1,0,0						
03749			BYTE	12,G1,0,0		;	G1, 0, 0			
03750			NOTE3	12,G1,0,0						
	2F47	0C7E0000	BYTE	12,G1,0,0		;	G1, 0, 0			
03751			NOTE3	24,C2,G1,E1						
	2F4F	185E7E96	BYTE	24,C2,G1,E1		;	C2, G1, E1			
03752			NOTE3	12,D2,R1,G1						
	2F53	0C5A647E	BYTE	12,D2,R1,G1		;	D2, R1, G1			
03753			NOTE3	14,E2,C2,G1						
	2F57	0E4A5E7E	BYTE	14,E2,C2,G1		;	E2, C2, G1			
03754			NOTE3	16,F2,D2,G1						
	2F5B	1046547E	BYTE	16,F2,D2,G1		;	F2, D2, G1			
03755			NOTE3	72,G2,E2,C2						
	2F5F	4B3E4A5E	BYTE	72,G2,E2,C2		;	G2, E2, C2			
03756			NOTE3	14,C2,F1,A1						
03757			BYTE	14,C2,F1,A1		;	C2, F1, A1			
03758			NOTE3	16,D2,F1,A1						
	2F63	0E5E8D70	NOTE3	16,D2,F1,A1		;	D2, F1, A1			
03759			NOTE3	54,E2,C2,A1						
	2F67	10548D70	NOTE3	54,E2,C2,A1		;	E2, C2, A1			
03760			NOTE3	18,F2,D2,G1						
	2F6B	364A5E70	NOTE3	18,F2,D2,G1		;	F2, D2, G1			
03761			NOTE3	36,D2,R1,G1						
	2F6F	1246547E	NOTE3	36,D2,R1,G1		;	D2, R1, G1			
03762			NOTE3	72,C2,E1,G1						
	2F73	2454647E	NOTE3	72,C2,E1,G1		;	C2, E1, G1			
03763			NOTE3	72,C2,E1,G1						
	2F77	483E967E	NOTE3	72,C2,E1,G1		;	C2, E1, G1			
03764	2F7B	> CHEERS	CALL	L2DF		;	NOW FOR SOME CHEERING			
03765	2F7B	> CDE02F	QUIET							
03766	2F7E	F0	BYTE	,OF0H						
03767			NOTE3	80H,96		;	96			
03768	2F7F	> CHANT	MASTER	96						
03769	2F7F	8060	BYTE	80H,96		;	96			
03770			LEGSTA							

*Handwritten notes:*  
 2  
 B  
 12

03771	2FB1 E0		BYTE	OE0H	
	2FB2 B7	+	OUTPUT	7,97	! NOISE
	2FB3 61	+	BYTE	80H+(7 & 7FH)	
03772	2FB4 A4	+	FUSHN	5	
			BYTE	0A0H+((5-1) & 0FH)	
03773			EQU.		
03774	2FB5	>	OUTPUT	1,32	! A
03775			BYTE	80H+(1 & 7FH)	
	2FB6 20	+	BYTE	32	
	2FB7 82	+	OUTPUT	2,16	! B
	2FB8 10	+	BYTE	80H+(2 & 7FH)	
03777	2FB9 CDA82F	>	CALL	16	
03778			CALL	L2FA6	
	2FC8 81	+	OUTPUT	1,48	! A
	2FD8 30	+	BYTE	80H+(1 & 7FH)	
			BYTE	48	
03779	2FE8 82	+	OUTPUT	2,32	! B
	2FBF 20	+	BYTE	80H+(2 & 7FH)	
	2F90 CDA82F	>	CALL	32	
			CALL	L2FA6	
03780			OUTPUT	1,64	! A
03781			BYTE	80H+(1 & 7FH)	
03782	2F93 81	+	BYTE	64	
	2F94 40	+	OUTPUT	2,37	! B
03783	2F95 82	+	BYTE	80H+(2 & 7FH)	
	2F96 25	+	BYTE	37	
03784	2F97 CDA82F	>	CALL	L2FA6	
03785			VOLUME	43H,13H	
03786	2F9A B0		BYTE	0B0H	
	2F9B 43	+	BYTE	43H	! B, A
	2F9C 13	+	BYTE	13H	! M, C
03787	2F9D A6	+	FUSHN	7	
			BYTE	0A0H+((7-1) & 0FH)	
03788			EQU		
03789	2F9E	>	CALL	L2FRD	
03790	2F9E CDB2F	>	DSJNZ	L2F9C	
03791			BYTE	0C0H	
	2FA1 C0		WORD	L2F9C	
	2FA2 9E2F	>+	DSJNZ	L2FB3	
03792			BYTE	0C0H	
	2FA4 C0		WORD	L2FB3	
	2FA5 852F	>+	QUIET		
03793			BYTE	0F0H	
03794	2FA7 F0		EQU		
03795			VOLUME	0CEH,01DH	
03796	2FA8	>	CALL	L2FA6	
03797			BYTE		



03823	2FC7 80	+	RYTE	80H+(0 & 7FH)
	2FC8 14	+	RYTE	20
	2FC9 D1	+	CREL	L2FCA
03824	2FCA F0	+	RYTE	0100H+((SCALAR(L2FCA-\$))-1) & 0FH)
			QUIET	
			RYTE	0F0H
03825				
03826	2FCB >	L2FCA	EQU.	\$
03827			VOLUME	0,0FH
	2FCB 80		RYTE	0R0H
	2FCC 00	+	RYTE	0
	2FCD 0F	+	RYTE	0FH
			OUTPUT	2,0
03828	2FCE 82	+	RYTE	80H+(2 & 7FH)
	2FCF 00	+	RYTE	0
			OUTPUT	7,0
03829	2FD0 87	+	RYTE	80H+(7 & 7FH)
	2FD1 00	+	RYTE	0
03830	2FD2 900C	+	VOICES	00001100R & C-INC FC
			RYTE	090H,00001100R
03831	2FD4 08RD	+	NOTE1	8,C1
			RYTE	8,C1
03832	2FD6 088D	+	NOTE1	8,F1
			RYTE	8,F1
03833	2FD8 0870	+	NOTE1	8,A1
			RYTE	8,A1
03834	2FDA 105E	+	NOTE1	16,C2
			RYTE	16,C2
03835	2FDC 0870	+	NOTE1	8,A1
			RYTE	8,A1
03836	2FDE 205E	+	NOTE1	32,C2
			RYTE	32,C2
03837			EQU	\$
03838	2FE0 >	L2FDF	LEGSTA	
03839			RYTE	0E0H
	2FE0 E0		MASTER	24
03840	2FE1 8018	+	RYTE	80H,24
			VOICES	1111101R & A,B,C & NOISE
03841	2FE3 90FD	+	RYTE	90H,1111101R
03842	2FE5 80		VOLUME	OFFH,01FH & MAX. VOLUME
	2FE6 FF	+	RYTE	0R0H
	2FE7 1F	+	RYTE	0FFH
			RYTE	01FH
03843				
03844	2FEB A4	+	FUSHN	5
			RYTE	0A0H+((5-1) & 0FH)
03845			EQU	\$
03846	2FE9 >	L2FEB	RYTE	30
03847	2FE9 1E			& NOISE
03848				
03849			NOTE3	25,06,60,80

CHICKS

```

03850 2FEA 19033C50 +      BYTE 25,66,60,80      ; 66, 60, 80
          DSJNZ          L2FE8
          BYTE          OC0H
          WORD          L2FE8
03851 2FF1 E0             LEGSTA
          2FF2 C9        RET          0E0H
03853
03854
03855
03856
03857 2FF3 > WHISTLE EQU .
03858
03859 2FF3 800C +          MASTER 12
          BYTE          80H,12      ; 12
          VOLUME      OFFH,0FH      ; VOLUME MAX.
          BYTE          080H
          BYTE          OFFH
          BYTE          OFFH
          BYTE          40H,04H,28H,2AH,2CH ; R, A
          ; M, C
03860 2FF8 4004282A
03860 2FFC 2C
03861 2FFD F0             QUIET
          BYTE          0F0H
03862
03863
03864
          END
  
```

Strings and Macros

RSTRING	003B	M	CREL	---	0041	M	DLF2	---	0041	M	DEF3	---	005A	M	DEF4	---	0073	M	
DEF5	---	008C	M	DO	---	0028	M	IGNT	---	0026	M	DSJNZ	---	003E	M	EXIT	---	0028	M
FILLS	---	006E	M	JMP	---	007C	M	LEGSTA	---	0027	M	MASTER	---	0033	M	MC	---	0080	M
NOTE1	---	0034	M	NOTE2	---	003A	M	NOTE3	---	004A	M	NOTE4	---	0050	M	NOTES	---	0056	M
OUTPUT	---	0145	M	FUSHN	---	0037	M	QUIET	---	0027	M	RC	---	0079	M	REST	---	0038	M
STOP	---	0027	M	SYSSUK	---	003F	M	SYSTEM	---	003D	M	TEXTM	---	0087	M	VOICES	---	002A	M
VOLUME	---	0071	M	XYDEFW	---	0032	M	XYRELL	---	0035	M								

Scalars

A0	---	00E1	A1	---	0070	A2	---	0037	A3	---	0018	A4	---	000D
A5	---	0006	ACTINT	---	000E	ALKEYS	---	0214	AS0	---	00D4	AS1	---	006A
AS2	---	0034	AS3	---	001A	RO	---	00C8	R1	---	0064	R2	---	0031
B3	---	0018	BCDADD	---	0062	BCDCHS	---	006A	BCDDIV	---	0068	BCDMUL	---	0066
BCDNEG	---	006C	BCDSUB	---	0064	RITSFL	---	00A0	BLANK	---	002A	C4	---	0012
BYTEPL	---	002B	C1	---	008D	C2	---	005E	C3	---	002E	C4	---	0017
C5	---	000B	C6	---	0005	C7	---	0002	CRA	---	0009	CRB	---	0007
CRC	---	0006	CRD	---	0006	CRE	---	0004	CRFLAG	---	0008	CRH	---	000B
CRHX	---	0003	CRIXL	---	0002	CRJYH	---	0001	CRIYL	---	0000	CRL	---	000A
CHDOWN	---	0001	CHLEFT	---	0002	CHRDS	---	0032	CHRIGH	---	0003	CHTRIG	---	0004
CHUP	---	0000	CMAG	---	0010	COL0L	---	0004	COLOR	---	0000	COL1L	---	0005
COL1R	---	0001	COL2L	---	0006	COL2R	---	0002	COL3L	---	0007	COL3R	---	0003
COLRX	---	000B	COLSET	---	0018	CONCM	---	0008	CS1	---	00E2	CS2	---	0059
CS3	---	002C	CS4	---	0015	CS5	---	000A	CTIMER	---	0203	D1	---	00AB
D2	---	0054	D3	---	0029	D4	---	001A	DARS	---	0072	DADD	---	006E
DECTS	---	0010	DISNUM	---	0036	DISTIM	---	0052	DUIT	---	0044	DOITR	---	0046
DS1	---	009F	DS2	---	004F	DS3	---	0027	DS4	---	0013	DS5	---	0009
DS6	---	0004	DSMG	---	0070	E1	---	0096	E2	---	004A	E3	---	0025
EA	---	0012	EMUSIC	---	0014	F1	---	008D	F2	---	0046	F3	---	0022
F4	---	0011	F5	---	0008	FILL	---	001A	FIRSTC	---	2000	FNTSML	---	020D
FNTSYS	---	0206	FS1	---	0085	FS2	---	0042	FS3	---	0020	FS4	---	0010
FIRASE	---	0000	FTRYTE	---	0003	FTRAX	---	0001	FTRSY	---	0002	FTFTH	---	0006
FPTL	---	0005	FTYSIZ	---	0004	G0	---	00FD	G1	---	007E	G2	---	003E
G3	---	001F	G4	---	000F	G5	---	0007	G6	---	0003	G7	---	0001
G8	---	0000	GETNUM	---	004E	GETPAR	---	004C	GS0	---	00EE	GS1	---	0077
GS2	---	003B	GS3	---	001D	GS4	---	000E	GSREND	---	0007	GSRSCR	---	0001
GSRTIM	---	0000	HORAF	---	000F	HORCR	---	0009	HUMANR	---	0040	INCSER	---	0054
INDEXR	---	005C	INDEXN	---	0056	INDEXW	---	005A	INFRK	---	000D	INLIN	---	000F
INMOD	---	000E	INTPC	---	0000	INTST	---	0008	KCTASC	---	0040	KEY0	---	0014
KEY1	---	0015	KEY2	---	0016	KEY3	---	0017	MAGIC	---	000C	MATH	---	0056
MCALL	---	0006	MENU	---	004A	MCNUS	---	0218	MJUMP	---	000A	MOVE	---	005E
MEXOR	---	0008	MRFLOP	---	0006	MROR	---	0004	MRROT	---	0002	MRSHT	---	0003
MRXOR	---	0005	MRXPND	---	0003	MSKTD	---	007E	MUZAK	---	0012	MXSCR	---	021E
NDXW	---	0020	NEG	---	0074	NOGAME	---	0235	NOFLAY	---	0228	NORMEM	---	4000
NUMP	---	0028	NWHDWR	---	0001	OA1	---	008F	OA2	---	0047	OA3	---	0023
OA4	---	0011	OA5	---	000B	OBO	---	00FE	OCO	---	00F1	OD1	---	00D6
OE1	---	008F	OF1	---	0084	OG1	---	00A0	PAWS	---	0050	PROX	---	0018
P1ZBRK	---	0048	POTO	---	001C	POT1	---	001D	POT2	---	001E	POT3	---	001F
P5WCY	---	0000	PSWPFY	---	0002	PSWSON	---	0007	PSWZRO	---	0006	QORF	---	000B
QUIT	---	0078	RANGED	---	0076	RCALL	---	0004	RECTAN	---	001C	RELAB1	---	003A

RELABS - 0038	RESET -- 0000	RESTOR - 002E	SAVE --- 002C	SCHEDR - 000C
SCREEN - 0000	SCROLL - 0030	SCRSTR - 0016	SCT0 --- 0001	SCT1 --- 0002
SCT2 --- 0003	SCT3 --- 0004	SCT4 --- 0005	SCT5 --- 0006	SCT6 --- 0007
SCT7 --- 0008	SENTRY - 0042	SEIB --- 007A	SETOUT - 0016	SETW --- 007C
SFO --- 0009	SF1 --- 000A	SF2 --- 0008	SF3 --- 000C	SF4 --- 000D
SF5 --- 000E	SF6 --- 000F	SF7 --- 0010	SHIFTU - 0060	SJO --- 0015
SJ1 --- 0017	SJ2 --- 0019	SJ3 --- 0018	SKYD --- 0013	SKYU --- 0012
SNDBX -- 0018	SNUL --- 0000	SFO --- 001C	SP1 --- 001D	SP2 --- 001E
SP3 --- 001F	SSEC --- 0011	ST0 --- 0014	ST1 --- 0016	ST2 --- 0018
ST3 --- 001A	STIMER - 0200	STOREN - 0058	SUCK --- 000C	SUCK --- 000C
SW0 --- 0010	SW1 --- 0011	SW2 --- 0012	STRDIS - 0034	STRDIS --- 0034
TONEA -- 0011	TONER -- 0012	TONEC -- 0013	SW3 --- 0013	SYSRAM - 4FCE
VBLENK - 0006	VBCCHK - 0004	VRCH --- 0003	TOMMO -- 0010	UPISTR - 0000
VBCLMT - 0000	VBCREV - 0001	VRUCH -- 0001	VRCL --- 0002	VRCLAT - 0003
VBXL --- 0003	VBVYH -- 0009	VEDYL -- 0008	VEDCL -- 0000	VRDXH -- 0004
VBOAH -- 000E	VBVAL -- 000D	VBSTAT - 0001	VELANK - 0028	VBMR --- 0000
VBXCHK - 0007	VBXH --- 0006	VBXL --- 0005	VBSTAT - 0001	VRTIMB - 0000
VBYL --- 000A	VECT --- 003E	VECTC -- 003C	VRYCHK - 000C	VRYH --- 000B
VERBL -- 000A	VERRA -- 0014	VOLAB -- 0016	VECTSZ - 0013	VERAF -- 000E
VWRITR - 001E	WASTE -- 00FF	WASTER - 00FF	VOLN --- 0015	VOLN --- 0017
WRITP -- 0022	WRITR -- 0020	XINTC -- 0002	WRIT --- 0024	WRITA --- 0026
			XFAND -- 0019	XFNDON - 0001

## Z (default) Section (4FFF)

ANTHEM - 2F42	APPLAUSE 26A4	REGAM - 4FCE	CHANT -- 2F7F	CHEERS - 2F7B
CNT ---- 4FDD	COLIST1 2DF5	COLIST2 2DF9	COLIST3 2DFD	COLISTA 2E01
COLIST5 2E05	COLIST6 2E09	COLIST7 2E0D	COLLST - 4FEB	CRNTPGRP 4FB8
CT0 ---- 4FDB	CT1 ---- 4FD6	CT2 ---- 4FD7	CT3 ---- 4FD8	CT4 ---- 4FD9
CT5 ---- 4FDA	CT6 ---- 4FDB	CT7 ---- 4FDC	CURQFAT 4FC3	CURSRPOS 4FCA
CURVECT 4E87	DEFNSPAT 2BF9	DIV3 --- 2828	DOCT7 -- 2B2C	DOCT7A - 2B43
DOCT7B - 2B48	DOCT7C - 2B4C	DOCT7D - 2B68	DOCT7E - 2B6D	DOCT7F - 2B77
DOCT7G - 2B79	DOJOY0 - 2A65	DOJOY0A 2A68	DOJOY0B 2A70	DOJOY1 - 2A99
DOJOY2 - 2AC5	DOJOY3 - 2ADB	DOJOY4A 2A9C	DOJOYSA 2A9C	DOJOYSA1 2AB1
DOJOYSA2 2AB3	DOJOYSAV 2AB7	DOKNOR0 295C	DOKNOR1 2956	DOKNORS 295F
DOKNORSA 297C	DOKNORSR 2980	DOKNORSC 2984	DOKNORSX 2988	DOTABLE 2F26
DOTRIGO 29A0	DOTRIG1 299C	DOTRIGS 29A2	DOWN2 -- 221C	DOWN2 -- 221C
DOWN3 -- 2228	DOWN4 -- 222D	DOWN5 -- 2235	DOWNNO - 4FC2	DOWNNO 24B2
DRWFELD 2B6B	DRWSBALL 24A3	DRWTEAM 24C2	DRWTEAMO 24CB	DRWTEAM1 24D4
DRWVECT 277B	DRWVECTA 2781	DURAT -- 4FEA	ENDSCR - 4FF4	FLANKERS 23D4
G.DLINEM 2CB5	G.END01 2CBA	G.END02 2CC2	G.END03 2CCA	G.END04 2CD2
G.END05 2CDA	G.END06 2CE2	G.END07 2CEA	G.END08 2CF2	G.FTBALL 2CAD
G.OLINEM 2C80	G.OTR01 2E66	G.OTR02 2E76	G.OTR03 2E86	G.OTR04 2E96
G.OTR05 2EA6	G.OTR06 2E86	G.OTR07 2EC6	G.OTR08 2ED6	G.OTR09 2EE8
G.OTR10 2EF8	G.OTR11 2F08	G.OTRSNP 2F18	GAME1 -- 2101	GAME2 -- 2103
GAMSTB - 4FF8	GTHINS - 4FEE	GTSECS - 4FED	HALF --- 4FRF	HALFTIME 211A
HANG --- 230D	INITFLAO 2796	INITFLAY 2795	INITVECO 27AA	INITVECT 27A9
INTTAB - 2020	KEYSEX - 4FE3	L.2FLAYR 20A5	L.4FLAYR 2DR5	L.AROUND 2D11
L.BALLON 2BDA	L.CROSS 2D76	L.DOWN - 2DD1	L.END -- 2DD6	L.FOOTRL 2D92
L.LMIDFS 2B4B	L.LONGEM 2D32	L.PLAYS 210B	L.FUNT - 2D9B	L.RAZZLE 2D84
L.SAFETY 2B04	L.SCREEN 2D6A	L.SIDELN 2D3C	L.SLANT 2D5C	L.SMIDPS 2D20
L.TCHOWN 2CFA	L.TIME - 2D60	L.YAR0G0 2DC5	L201F -- 201F	L202A -- 202A
L204A -- 204A	L204E -- 204E	L2075 -- 2075	L2082 -- 2082	L208A -- 208A
L2094 -- 2094	L2087 -- 2087	L208C -- 208C	L208E -- 208E	L20CA -- 20CA

L20D0	--	20D0	L20D7	--	20D7	L20DA	--	20DA	L20E4	--	20E4	L20E7	--	20E7
L20EF	--	20EF	L20F4	--	20F4	L20FB	--	20FB	L2134	--	2134	L2134	--	2134
L2146	--	2146	L215F	--	215F	L2164	--	2164	L2188	--	2188	L2188	--	2188
L21E7	--	21E7	L21F3	--	21F3	L21F6	--	21F6	L2208	--	2208	L2211	--	2211
L2214	--	2214	L223C	--	223C	L2268	--	2268	L2273	--	2273	L2280	--	2280
L22A7	--	22A7	L22AE	--	22AE	L230F	--	230F	L2326	--	2326	L2337	--	2337
L2343	--	2343	L234A	--	234A	L234C	--	234C	L237F	--	237F	L2380	--	2380
L23B7	--	23B7	L23E2	--	23E2	L240R	--	240R	L2423	--	2423	L242D	--	242D
L2434	--	2434	L2450	--	2450	L245R	--	245R	L246D	--	246D	L2480	--	2480
L248F	--	248F	L24D9	--	24D9	L24E3	--	24E3	L24ED	--	24ED	L2515	--	2515
L2545	--	2545	L255F	--	255F	L256E	--	256E	L257E	--	257E	L258C	--	258C
L2592	--	2592	L25AF	--	25AF	L25C8	--	25C8	L25D4	--	25D4	L259E	--	259E
L25E4	--	25E4	L2607	--	2607	L260F	--	260F	L2611	--	2611	L265F	--	265F
L2692	--	2692	L2698	--	2698	L26B2	--	26B2	L26C8	--	26C8	L26CB	--	26CB
L26D2	--	26D2	L26E1	--	26E1	L26E4	--	26E4	L26FE	--	26FE	L270F	--	270F
L2711	--	2711	L271A	--	271A	L273A	--	273A	L2752	--	2752	L275E	--	275E
L2767	--	2767	L27D7	--	27D7	L27ED	--	27ED	L27F3	--	27F3	L27F5	--	27F5
L27FC	--	27FC	L2802	--	2802	L2807	--	2807	L280A	--	280A	L281D	--	281D
L282A	--	282A	L2832	--	2832	L2840	--	2840	L2842	--	2842	L2846	--	2846
L2852	--	2852	L2862	--	2862	L2866	--	2866	L2881	--	2881	L2891	--	2891
L2892	--	2892	L28A0	--	28A0	L28A5	--	28A5	L28D0	--	28D0	L28E3	--	28E3
L28FE	--	28FE	L2937	--	2937	L2942	--	2942	L2944	--	2944	L29F0	--	29F0
L2A14	--	2A14	L2A23	--	2A23	L2A27	--	2A27	L2A38	--	2A38	L2A48	--	2A48
L2A4E	--	2A4E	L2A58	--	2A58	L2ACA	--	2ACA	L2AD2	--	2AD2	L2AEO	--	2AEO
L2AF4	--	2AF4	L2BC7	--	2BC7	L2BC9	--	2BC9	L2BCB	--	2BCB	L2BCD	--	2BCD
L2RCF	--	2RCF	L2RD1	--	2RD1	L2RD3	--	2RD3	L2RD5	--	2RD5	L2RD7	--	2RD7
L2RD9	--	2RD9	L2RD8	--	2RD8	L2RD0	--	2RD0	L2C59	--	2C59	L2C5C	--	2C5C
L2C5F	--	2C5F	L2C62	--	2C62	L2C65	--	2C65	L2C68	--	2C68	L2C6A	--	2C6A
L2C6E	--	2C6E	L2C71	--	2C71	L2C74	--	2C74	L2C77	--	2C77	L2C7A	--	2C7A
L2C7D	--	2C7D	L2C80	--	2C80	L2C83	--	2C83	L2C86	--	2C86	L2C89	--	2C89
L2C8C	--	2C8C	L2C8F	--	2C8F	L2C92	--	2C92	L2C95	--	2C95	L2C98	--	2C98
L2E3D	--	2E3D	L2F83	--	2F83	L2F9C	--	2F9C	L2FA6	--	2FA6	L2FRD	--	2FRE
L2FC6	--	2FC6	L2FCA	--	2FCR	L2FDI	--	2FE0	L2FEB	--	2FE9	L4E73	--	4E73
L4E82	--	4E82	L4FB8	--	4FBR	L4FE	--	4FE	L4FCO	--	4FC0	L4FC6	--	4FC6
LIMIT1	--	278D	LIMIT2	--	2791	LINERALL	--	4FRC	LSHAGIC	--	4FC1	MENU2	--	2019
MKLOCK	--	4FF7	MUSICWRK	--	4E7F	MUZFC	--	4FCE	MUZSP	--	4FD0	NEWDELTA	--	2AFE
NUMFLAYR	--	4EB1	NUMPLY	--	4FF3	OFFPAT1	--	2RE1	OFFPAT2	--	2RED	OPOTO	--	4DF
OPOT1	--	4FE0	OPOT2	--	4FE1	OPOT3	--	4FE2	OSWO	--	4FE4	OSW1	--	4FE5
OSW2	--	4FE6	OSW3	--	4FE7	FGROUP1	--	2R89	FGROUP2	--	2R93	FGROUP2	--	2R9D
FGROUP2P	--	2BA7	FGROUP3	--	2R81	FGROUP3P	--	2R8R	PLAY01	--	2C4D	PLAY02	--	2C50
PLAY03	--	2C53	PLAY04	--	2C56	FLAYLOOP	--	2499	FLAYFUNT	--	2C98	PLAYTAB	--	2RCS
POSTAB1	--	2C05	POSTAB2	--	2C15	POSTAR3	--	2C19	POSTAR4	--	2C2D	POSTAR5	--	2C45
PRIOR	--	4FF9	PVOLAB	--	4FD2	FVOLMC	--	4FD3	QOLDFATR	--	4EB3	QPATERN5	--	2E52
QPOSOLDX	--	4EB5	QPOSOLDY	--	4EB6	RANSHT	--	4FEF	RDRIGU	--	29D6	RDRIGU	--	29DD
RDRIG1	--	29E5	RDRIG2	--	29E7	RST08	--	2R83	RST10	--	2R17	RST18	--	2R1C
RST20	--	2B1F	RST28	--	2R22	RST30	--	2R27	SCOREA	--	4FC7	SCOREB	--	4FC8
SCORERRD	--	2R8B	SCRIMLIN	--	4F8D	SELFPLAY	--	4FBA	SEMIAS	--	4FDE	SENFLG	--	4FFA
SETOFFA	--	2R04	SETOFFB	--	2R0D	TIMECHK	--	2157	TIMOUT	--	4FEC	THR60	--	4FEF
UMARGT	--	4FFB	USERTB	--	4FFU	VCTDQTRB	--	4F46	VCTEND1	--	4E88	VCTEND2	--	4E9B
VCTEND3	--	4EAE	VCTEND4	--	4EC1	VCTIND1	--	4F59	VCTIND2	--	4F6C	VCTIND3	--	4F7F
VCTLIND4	--	4F92	VCTLIND5	--	4FA5	VCTLINO1	--	4EE7	VCTLINO2	--	4EFA	VCTLINO3	--	4F0D
VCTLINO4	--	4F20	VCTLINO5	--	4FA3	VCTOQTRB	--	4ED4	VECTAR1	--	2E11	VECTAR2	--	2E2D
VECTSKEL	--	2DE2	VICTORY	--	2FC1	VOICE	--	4FD4	WHISTLE	--	2FF3	YARDSTAB	--	2E45