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&gt;&gt;&gt; SK-FORTH 79 &lt;&lt;&lt;

## ASSEMBLY LANGUAGE SOURCE LISTING

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## FORTH-79 STANDARD

## Double-Number Standard Extensions

BY:

JOHN W. BROWN

DISTRIBUTED BY:

SATURN SOFTWARE LIMITED  
P. O. BOX 397  
NEW WESTMINSTER, V3L 4Y7

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Address all communications to:

John W. Brown, President  
 Saturn Software Limited  
 P. O. BOX 397  
 New Westminster, B. C.  
 V3L 4Y7, CANADA

&gt;PA

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0010      .LS
0020      .CT FTH05
0001 ;
0002 ****
0003 ;**   SK-FORTH (79-STANDARD) **
0004 ;**   BY JACK W. BROWN   **
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0010 ;**   V3L 4Y7, CANADA   **
0011 ; ****
0012 ;
0013
0014 ****
0015 ;**   SYM/KIM-FORTH PART 0   **
0016 ;**   DISK FILE FTH05   **
0017 ;**   FEBRUARY 04, 1982   **
0018 ****
0019
0020 ;** CONDITIONAL ASSEMBLY VARIABLES
0021
0022 SYM      .DE $0000 SET FOR SYM ASSEMBLY
0023 KIM      .DE $0000 SET FOR KIM ASSEMBLY
0024 MYKIM    .DE $0000 SET FOR MYKIM
0025 DISK     .DE $0000 SET FOR DISK ASSEMBLY
0026
0027     SET MYKIM = 0
0028     SET KIM = 0
0029     SET SYM = 1
0030     SET DISK = 0
0031
0032     IFE SYM-1
0033 BASEAD   .DE $0200
0034 MEM      .DE $6000 TOP OF FORTH SYS MEMORY
0035 DRAM     .DE $6000 START OF DISK IN RAM
0036     ***
0037
0038     IFE KIM-1
0039 BASEAD   .DE $2000
0040 MEM      .DE $8000 TOP OF FORTH SYS MEMORY
0041 DRAM     .DE $C000 START OF DISK IN RAM
0042     ***
0043
0044     .BA BASEAD
0045     .MC $0200
0046     .OS
0047     .CE
0048
0049 ;      EQUATES GIVING MEMORY ASSIGNMENTS
0050 ;      MACHINE REGISTERS AND DISK PARAMETERS
0051

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```

0052 SSIZE      .DE $0080
0053 NBUF>     .DE $0002
0054 SBLK>     .DE $0008
0055 BBUF>     .DE $0400
0056 BSCR>     .DE $0001
0057 BMAG       .DE $0808 ( BBUF> + 4 )* NBUF>
0058
0059
0060 BOS        .DE $20 BOTOM OF DATA STACK PAGE ZERO
0061 TOS        .DE $9E TOP OF DATA STACK PAGE ZERO
0062
0063 IFE SYM-1
0064
0065 TWIDTH     .DE $4F
0066 MODE       .DE $FD
0067 TTYO       .DE $20
0068 CRTO       .DE $80
0069 CRTI       .DE $10
0070 B2400     .DE $06
0071 B4800     .DE $01
0072 ***%
0073
0074 IFE KIM-1
0075
0076 TWIDTH     .DE $40
0077 BDRY       .DE $FO
0078 OLD        .DE $F1
0079 CHAR       .DE $F2
0080 BUFADL    .DE $F3
0081 BUFADH    .DE $F4
0082
0083 SYN        .DE $16
0084 EOT        .DE $04
0085 BIT.IN     .DE $01 BIT 0 IS INPUT
0086 BIT.OUT    .DE $02 BIT 1 IS OUTPUT
0087 ***
0088 ;
0089 N          .DE TOS+8 SCRATCH WORKSPACE
0090 IP         .DE N+8 INTERPRETIVE POINTER
0091 W          .DE IP+3 CODE FIELD POINTER
0092 UP         .DE W+2 USER AREA POINTER
0093 XSAVE     .DE UP+2 TEMP AREA FOR X REGISTER
0094 YSAVE     .DE XSAVE+1 TEMP FOR Y REGISTER
0095 TEMP       .DE YSAVE+1 INDIRECT JMP ADDRESS
0096 XW         .DE TEMP+2
0097 NP         .DE XW+2
0098
0099 TIBX       .DE $100 TERMINAL INPUT BUFFER 84 BYTES
0100 ORIG      .DE FORTH.TOP
0101
0102 UAREA      .DE MEM-$80 (128)BYTE USER AREA
0103 DAREA      .DE UAREA-BMAG DISK BUFFER AREA
0104
0105 IFE SYM-1
0106
0107 VIAORB    .DE $A000
0108 VIADRB    .DE $A002
0109 VIAPCR    .DE $A00C

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0110 TECCHO    .DE $A653
0111 TOUTFL    .DE $A654
0112 SDBYT      .DE $A651
0113 TF ID>    .DE $A64E
0114 TSAD>     .DE $A64C
0115 TEAD>     .DE $A64A
0116 USRBRK    .DE $A676
0117 MONBRK    .DE $804A
0118 TOUT      .DE $8AA0
0119 USRENT    .DE $8035
0120 SAVER     .DE $8188
0121 RESXAF    .DE $81B8
0122 RESXF     .DE $81BE
0123 RESALL    .DE $81C4
0124 ACCESS    .DE $8B86
0125 BEEP       .DE $8972
0126 DELAY     .DE $899B
0127 INSTAT    .DE $8386
0128 INCH      .DE $8A58 INPUT ASCII CHAR FROM TERM
0129 TCR       .DE $834D TERMINAL CR LF
0130 MONLOAD   .DE $8C7B
0131 MONSAVE   .DE $8E8A
0132 CONFIG    .DE $89A5
0133 ZERCK     .DE $832E
0134 P2SCR     .DE $829C
0135 INCP3     .DE $8293
0136 ***
0137
0138 IFE KIM-1
0139
0140 TMODE     .DE $17E6
0141 SCR6      .DE $17E7
0142 SCR7      .DE $17E8
0143 SCR8      .DE $17B4
0144 SCR9      .DE $17B5
0145 TAPE1     .DE $17B6
0146 TAPE2     .DE $17B7
0147 HSBDRY    .DE $17B8
0148 TAPE.DEL .DE $17B9
0149
0150 TFID>    .DE $17BA
0151 TSAD>    .DE $17BC
0152 TEAD>    .DE $17BE
0153 TSPEED    .DE $17B2
0154
0155 SAD       .DE $1740
0156 SADD      .DE $1741
0157 SBD       .DE $1742
0158 PBD       .DE $1702
0159 PBDD      .DE $1703
0160 TIMER     .DE $1706
0161 TIM8      .DE $1705
0162
0163 ZERCK     .DE $1943
0164 INIT1     .DE $1E8C
0165 CHKT      .DE $194C
0166 NMIVEC    .DE $17FA
0167 USRBRK    .DE $17FE

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0168 MONBRK .DE $1925
0169 GETCH .DE $1E5A
0170 TOUT .DE $1EA0
0171 TCR .DE $1E2F
0172 TTYOUT .DI RETURN
0173 PCRLF .DI RETURN
0174 ***
0175
0176 IFE MYKIM-1
0177
0178 VIA.ACR .DE $080B
0179 VIA.SR .DE $080A
0180 VIA.T2LL .DE $0808
0181 ***
0182 ;
0183
0184 IFE SYM-1
0185
0186 FLBOT> .DE $7210
0187 FLTOP> .DE $7212
0188 CONNUM> .DE $7214
0189 DKNUM> .DE $7215
0190 MTRKAD> .DE $7216
0191 MSECAD> .DE $7217
0192 COMAND> .DE $7218
0193 CONCOM> .DE $7219
0194 MSTAT> .DE $721A
0195 ERCODE> .DE $721B
0196 MDISK> .DE $7C7C
0197 ***
0198
0199 IFE KIM-1
0200
0201 FLBOT> .DE $F210
0202 FLTOP> .DE $F212
0203 CONNUM> .DE $F214
0204 DKNUM> .DE $F215
0205 MTRKAD> .DE $F216
0206 MSECAD> .DE $F217
0207 COMAND> .DE $F218
0208 CONCOM> .DE $F219
0209 MSTAT> .DE $F21A
0210 ERCODE> .DE $F21B
0211 MDISK> .DE BELL.VEC
0212 ***
0213
0214 ;
0215 ; FROM DAREA DOWNWARD TO TOP OF THE
0216 ; DICTIONARY IS SPACE WHERE THE
0217 ; USERS APPLICATIONS ARE COMPILED
0218
0219
0220 ; BOOT UP PARAMETERS.
0221 ; JUMP VECTORS TO BOOTUP CODE
0222 ; PARAMETERS DESCRIBING THE SYSTEM
0223
0224 SYSBASE .DI ENTER
0225

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0200- 4C 1C 14 0226 ENTER JMP CCOLD+2 COLD VECTOR
0203- 4C 2C 14 0227 REENTER JMP WARM WARM VECTOR
0206- 4C 58 8A 0228 TIN.VEC JMP INCH
0209- 4C A0 8A 0229 TOUT.VEC JMP TOUT
020C- 4C 4D 83 0230 TCRLF.VEC JMP TCR
020F- 4C 60 19 0231 POUT.VEC JMP TTYOUT
0212- 4C F5 18 0232 PCRLF.VEC JMP PCRLF
0215- 4C BA 18 0233 ECHAR.VEC JMP OUT.ALL
0218- 4C DF 18 0234 ECRLF.VEC JMP CRLF.ALL
021B- 4C 86 83 0235 BREAK.VEC JMP INSTAT
021E- 4C 72 89 0236 BELL.VEC JMP BEEP
0221- 4C F8 14 0237 CREAD.VEC JMP CREAD
0224- 4C B5 14 0238 CWRITE.VEC JMP CWRITE
0227- 4C 7C 7C 0239 DISK.VEC JMP MDISK>
0240 ;
022A- B8 25 0241 FORTH.TOP .SI NTOP LAST FORTH ENTRY
022C- 08 00 0242 .SE $0008 BACK SPACE CHARACTER
022E- 80 5F 0243 I.UP .SE UAREA INITIAL USER AREA
0230- 9E 00 0244 I.SO .SE TOS INITIAL TOP OF STACK
0232- FF 01 0245 I.RO .SE $1FF INITIAL TOP OF RETURN STACK
0234- 00 01 0246 I.TIB .SE TIBX INITIAL TERMINAL INPUT BUFFER
0236- 1F 00 0247 I.WIDTH .SE $1F INITIAL NAME FIELD WIDTH(31)
0238- 00 00 0248 I.WARN .SE $00 NO DISK=0,DISK=1
023A- 5D 2E 0249 I.FENCE .SI TOP INITIAL FENCE ADDRESS
023C- 5D 2E 0250 I.DP .SI TOP INITIAL TOP OF DICTIONARY
023E- 70 25 0251 I.VOCLNK .SI ALO INITIAL VOCAB LINK POINTER
0252 ;
0240- 01 0253 KTMFLG .BY $01 ;SET FOR KTM-2
0241- 01 0254 TBAUD .BY B4800
0242- 06 0255 PBAUD .BY B2400
0256 ;
0257 .CT FTH10

0258 ;
0259 ;*****SK-FORTH (79-STANDARD)*****
0260 ;** SK-FORTH (79-STANDARD) **
0261 ;** HDE MINI/SYKES DISK VERSION **
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0268 ;** V3L 4Y7, CANADA **
0269 ;*****LIT. AND REFERENCES*****
0270 ;
0271
0272 ;*****SYM/KIM FORTH PART 1 *****
0273 ;** SYM/KIM FORTH PART 1 **
0274 ;** DISK FILE FTH10 **
0275 ;*****LIT. AND REFERENCES*****
0276
0277 ; LIT. AND REFERENCES
0278
0279 .BY $83 'LI' $D4
0246- D4

```

0247- 00 00	0280	.SE \$00
0249- 4B 02	0281 LIT	.SI +=2
024B- B1 AE	0282	LDA (IP),Y
024D- 48	0283	PHA
024E- E6 AE	0284	INC *IP
0250- D0 02	0285	BNE LIT1
0252- E6 AF	0286	INC *IP+1
0254- B1 AE	0287 LIT1	LDA (IP),Y
0256- E6 AE	0288 LIT2	INC *IP
0258- D0 02	0289	BNE PUSH
025A- E6 AF	0290	INC *IP+1
	0291	
025C- CA	0292 PUSH	DEX
025D- CA	0293	DEX
	0294	
025E- 95 01	0295 PUT	STA *\$01,X
0260- 68	0296	PLA
0261- 95 00	0297	STA *\$00,X
	0298	
	0299	
	0300 ;	NEXT IS THE ADDRESS INTERPRETER THAT MOVES FROM
	0301 ;	MACHINE LEVEL WORD TO WORD.
	0302	
0263- A0 00	0303 NEXT	LDY #\$00
0265- B1 AE	0304	LDA (IP),Y FETCH CODE FIELD ADDRESS
0267- 85 B1	0305	STA *W
0269- C8	0306	INY
026A- B1 AE	0307	LDA (IP),Y
026C- 85 B2	0308	STA *W+1
026E- B1 B1	0309	LDA (W),Y
0270- 85 B8	0310	STA *TEMP+1
0272- 88	0311	DEY
0273- B1 B1	0312	LDA (W),Y
0275- 85 B7	0313	STA *TEMP
0277- 20 97 02	0314	JSR TRACE REMOVE WHEN ALL IS WELL
027A- 18	0315	CLC
027B- A5 AE	0316	LDA *IP
027D- 69 02	0317	ADC #\$02
027F- 85 AE	0318	STA *IP
0281- 90 02	0319	BCC NEXT1
0283- E6 AF	0320	INC *IP+1
0285- 6C B7 00	0321 NEXT1	JMP (TEMP) INDIRECT JUMP
	0322	
	0323 ;	CLIT - PUSHES NEXT INLINE BYTE TO DATA STACK
	0324	
0288- 84 43 4C	0325	.BY \$84 'CLI' \$D4
028B- 49 D4		
028D- 43 02	0326	.SI LIT-\$06 LINK TO LIT
028F- 91 02	0327 CLIT	.SI +=2
0291- B1 AE	0328	LDA (IP),Y
0293- 48	0329	PHA
0294- 98	0330	TYA
0295- F0 BF	0331	BEQ LIT2 FORCED BRANCH TO LIT
	0332	
	0333 ;	TEMPORARY TRACE ROUTINE
	0334	
	0335	
0297- 86 B5	0336 TRACE	STX *XSAVE

0299- 20 DF 18	0337	JSR CRLF.ALL
029C- A5 AF	0338	LDA *IP+1
029E- 20 FE 18	0339	JSR PRTBYT
02A1- A5 AE	0340	LDA *IP
02A3- 20 FE 18	0341	JSR PRTBYT PRINT THE INTERPRETIVE POINTER
02A6- 20 D4 18	0342	JSR OUTSP.ALL
	0343	
02A9- A0 00	0344	LDY #\$00
02AB- B1 AE	0345	LDA (IP),Y
02AD- 85 B9	0346	STA *XW
02AF- 85 BB	0347	STA *NP FETCH NEXT CODE FIELD POINTER
02B1- C8	0348	INY
02B2- B1 AE	0349	LDA (IP),Y
02B4- 85 BA	0350	STA *XW+1
02B6- 85 BC	0351	STA *NP+1
02B8- 20 13 03	0352	JSR PRNAM PRINT DICTIONARY NAME
	0353	
02BB- A5 BA	0354	LDA *XW+1 PRINT CODE FIELD ADDRESS
02BD- 20 FE 18	0355	JSR PRTBYT
02C0- A5 B9	0356	LDA *XW
02C2- 20 FE 18	0357	JSR PRTBYT
02C5- 20 D4 18	0358	JSR OUTSP.ALL
	0359	
02C8- A5 B5	0360	LDA *XSAVE PRINT STACK LOCATION IN Z PAGE
02CA- 20 FE 18	0361	JSR PRTBYT
02CD- 20 D4 18	0362	JSR OUTSP.ALL
	0363	
02D0- A9 01	0364	LDA #\$01 PRINT RETURN STACK BOTTOM
02D2- 20 FE 18	0365	JSR PRTBYT
02D5- BA	0366	TSX
02D6- E8	0367	INX
02D7- 8A	0368	TXA
02D8- 20 FE 18	0369	JSR PRTBYT
02DB- 20 D4 18	0370	JSR OUTSP.ALL
	0371	
02DE- 20 1B 02	0372	TBREAK
02E1- B0 02	0373	JSR BREAK.VEC
02E3- 90 OE	0374	BCS TBRK
02E5- 20 AF 18	0375	BCC TBRK2
02E8- C9 20	0376	JSR INTCHR
02EA- F0 07	0377	CMP #\$20 ;SPACE TO CONTINUE TRACE
02EC- C9 OD	0378	BEQ TBRK2
02EE- D0 F5	0379	CMP #\$0D ;CR TO QUIT TRACE
02F0- 20 1F OF	0380	BNE TBRK
02F3- A6 B5	0381	JSR TROFF
02F5- A0 00	0382	LDX *XSAVE
02F7- 60	0383	LDY #\$00
	0384	RTS
	0385 ;	TCOLON - CALLED FROM DOCOLON TO LABEL EACH
	0386 ;	POINT WHERE FORTH 'NESTS' ONE LEVEL.
	0387	
02F8- 86 B5	0388	STX *XSAVE
02FA- A5 B1	0389	LDA *W
02FC- 85 BB	0390	STA *NP LOCATE NAME OF CALLED WORD
02FE- A5 B2	0391	LDA *W+1
0300- 85 BC	0392	STA *NP+1
0302- 20 DF 18	0393	JSR CRLF.ALL
0305- A9 3A	0394	LDA #':

0307- 20 BA 18	0395	JSR OUT.ALL
030A- 20 D4 18	0396	JSR OUTSP.ALL
030D- 20 13 03	0397	JSR PRNAM
0310- 4C DE 02	0398	JMP TBREAK
0399		
0400 ; PRNAM - PRINT NAME BY CODE FIELD ADDRESS IN NP		
0401		
0313- 20 35 03	0402	PRNAM
0316- 20 35 03	0403	JSR DECNP
0319- 20 35 03	0404	JSR DECNP
031C- A0 00	0405	LDY #\$00
031E- 20 35 03	0406	PN1
0321- B1 BB	0407	LDA (NP),Y LOOP TILL BIT 7 IN NAME SET
0323- 10 F9	0408	BPL PN1
0325- C8	0409	PN2
0326- B1 BB	0410	INY
0328- 20 BA 18	0411	LDA (NP),Y
032B- B1 BB	0412	JSR OUT.ALL PRINT LETTERS OF NAME FIELD
032D- 10 F6	0413	LDA (NP),Y
032F- 20 D4 18	0414	JSR OUTSP.ALL
0332- A0 00	0415	LDY #\$00
0334- 60	0416	RTS
0417		
0418 ; DECNP - DECREMENT FIELD NAME POINTER		
0419		
0335- A5 BB	0420	DECNP
0337- D0 02	0421	BNE DECNP1
0339- C6 BC	0422	DEC *NP+1
033B- C6 BB	0423	DEC *NP
033D- 60	0424	RTS
0425		
0426		
033E- 0A	0427	SETUP
033F- 85 A5	0428	STA *N-1
0341- B5 00	0429	SETUP1
0343- 99 A6 00	0430	LDA *\$00,X
0346- E8	0431	STA N,Y
0347- C8	0432	INX
0348- C4 A5	0433	CPY *N-1
034A- D0 F5	0434	BNE SETUP1
034C- A0 00	0435	LDY #\$00
034E- 60	0436	RTS
0437		
0438 ; EXECUTE		
0439		
034F- 87 45 58	0440	.BY \$87 'EXECUT' \$C5
0352- 45 43 55		
0355- 54 C5		
0357- 88 02	0441	.SI CLIT-\$07 LINK TO CLIT
0359- 5B 03	0442	EXEC
035B- B5 00	0443	.SI +=2
035D- 85 B1	0444	LDA *\$00,X
035F- B5 01	0445	STA *W
0361- 85 B2	0446	LDA *\$01,X
0363- A0 01	0447	STA *W+1
0365- B1 B1	0448	LDY #\$01
0367- 85 B8	0449	LDA (W),Y
0369- 88	0450	STA *TEMP+1
DEY		

036A- B1 B1	0451	LDA (W),Y
036C- 85 B7	0452	STA *TEMP
036E- E8	0453	INX
036F- E8	0454	INX
0370- 6C B7 00	0455	JMP (TEMP) INDIRECT JUMP
0456		
0457 ; BRANCH		
0458		
0373- 86 42 52	0459	.BY \$86 'BRANC' \$C8
0376- 41 4E 43		
0379- C8		
037A- 4F 03	0460	.SI EXEC-\$0A
037C- 7E 03	0461	BRAN
037E- 18	0462	CLC
037F- B1 AE	0463	LDA (IP),Y
0381- 65 AE	0464	ADC *IP
0383- 48	0465	PHA
0384- C8	0466	INY
0385- B1 AE	0467	LDA (IP),Y
0387- 65 AF	0468	ADC *IP+1
0389- 85 AF	0469	STA *IP+1
038B- 68	0470	PLA
038C- 85 AE	0471	STA *IP
038E- 4C 63 02	0472	JMP NEXT
0473		
0474 ; OBRANCH		
0475		
0391- 87 30 42	0476	.BY \$87 'OBRANC' \$C8
0394- 52 41 4E		
0397- 43 C8		
0399- 73 03	0477	.SI BRAN-\$09
039B- 9D 03	0478	ZBRAN
039D- E8	0479	.SI +=2
039E- E8	0480	INX
039F- B5 FE	0481	LDA *\$FE,X
03A1- 15 FF	0482	ORA *\$FF,X
03A3- F0 D9	0483	BEQ BRAN+2
0484		
03A5- 18	0485	BUMP
03A6- A5 AE	0486	CLC
03A8- 69 02	0487	LDA *IP
03AA- 85 AE	0488	ADC #\$02
03AC- 90 02	0489	STA *IP
03AE- E6 AF	0490	BCC BUMP1
03B0- 4C 63 02	0491	INC *IP+1
0492		
0493 ; (LOOP)		
0494		
03B3- 86 28 4C	0495	.BY \$86 '(LOOP' \$A9
03B6- 4F 4F 50		
03B9- A9		
03BA- 91 03	0496	.SI ZBRAN-\$0A
03BC- BE 03	0497	PLOOP
03BE- 86 B5	0498	.SI +=2
03CO- BA	0499	STX *XSAVE
03C1- FE 01 01	0500	TSX
03C4- D0 03	0501	INC \$101,X
03C6- FE 02 01	0502	BNE PL1
INC \$102,X		

	0503		
03C9-	18	0504 PL1	CLC
03CA-	BD 03	0505	LDA \$103,X
03CD-	FD 01	0506	SBC \$101,X
03D0-	BD 04	0507	LDA \$104,X
03D3-	FD 02	0508	SBC \$102,X
		0509	
03D6-	A6 B5	0510 PL2	LDX *XSAVE
03D8-	0A	0511	ASL A
03D9-	90 A3	0512	BCC BRAN+2
03DB-	68	0513	PLA
03DC-	68	0514	PLA
03DD-	68	0515	PLA
03DE-	68	0516	PLA
03DF-	4C A5 03	0517	JMP BUMP
		0518	
		0519 ;	(+LOOP)
		0520	
03E2-	87 28 2B	0521	.BY \$87 '(+LOOP' \$A9
03E5-	4C 4F 4F		
03E8-	50 A9		
03EA-	B3 03	0522	.SI PLOOP-\$09
03EC-	EE 03	0523 PPL00	.SI =+2
03EE-	E8	0524	INX
03EF-	E8	0525	INX
03F0-	86 B5	0526	STX *XSAVE
03F2-	B5 FF	0527	LDA *\$FF,X
03F4-	48	0528	PHA
03F5-	48	0529	PHA
03F6-	B5 FE	0530	LDA *\$FE,X
03F8-	BA	0531	TSX
03F9-	E8	0532	INX
03FA-	E8	0533	INX
03FB-	18	0534	CLC
03FC-	7D 01 01	0535	ADC \$101,X
03FF-	9D 01 01	0536	STA \$101,X
0402-	68	0537	PLA
0403-	7D 02 01	0538	ADC \$102,X
0406-	9D 02 01	0539	STA \$102,X
0409-	68	0540	PLA
040A-	10 BD	0541	BPL PL1
040C-	38	0542	SEC ;CHANGED FROM CLC FOR 79-STD
040D-	BD 01 01	0543	LDA \$101,X
0410-	FD 03 01	0544	SBC \$103,X
0413-	BD 02 01	0545	LDA \$102,X
0416-	FD 04 01	0546	SBC \$104,X
0419-	4C D6 03	0547	JMP PL2
		0548	
		0549 ;	(DO)
		0550	
041C-	84 28 44	0551	.BY \$84 '(DO' \$A9
041F-	4F A9		
0421-	E2 03	0552	.SI PPL00-\$0A
0423-	25 04	0553 PDO	.SI =+2
0425-	B5 03	0554	LDA *\$03,X
0427-	48	0555	PHA
0428-	B5 02	0556	LDA *\$02,X
042A-	48	0557	PHA

	042B-	B5 01	0558	LDA *\$01,X
	042D-	48	0559	PHA
	042E-	B5 00	0560	LDA *\$00,X
	0430-	48	0561	PHA
			0562	
	0431-	E8	0563 POPTWO	INX
	0432-	E8	0564	INX
			0565	
	0433-	E8	0566 POP	INX
	0434-	E8	0567	INX
	0435-	4C 63 02	0568	JMP NEXT
			0569	
			0570 ;	I
			0571	
	0438-	81 C9	0572	.BY \$81 \$C9
	043A-	1C 04	0573	.SI PDO-\$07
	043C-	26 07	0574 I	.SI R+2 SHARE CODE FOR R
			0575	
			0576 ;	J
			0577	
	043E-	81 CA	0578	.BY \$81 \$CA
	0440-	38 04	0579	.SI I-\$04
	0442-	44 04	0580 J	.SI =+2
	0444-	B6 B5	0581	STX *XSAVE
	0446-	BA	0582	TSX
	0447-	BD 05 01	0583	LDA \$0105,X
	044A-	48	0584	PHA
	044B-	BD 06 01	0585	LDA \$0106,X
	044E-	A6 B5	0586	LDX *XSAVE
	0450-	4C 5C 02	0587	JMP PUSH
			0588 ;	
			0589 ;	K - 2ND OUTER LOOP INDEX
			0590 ;	
	0453-	81 CB	0591	.BY \$81 \$CB
	0455-	3E 04	0592	.SI J-\$04
	0457-	59 04	0593 K	.SI =+2
	0459-	B6 B5	0594	STX *XSAVE
	045B-	BA	0595	TSX
	045C-	BD 09 01	0596	LDA \$109,X
	045F-	48	0597	PHA
	0460-	BD 0A 01	0598	LDA \$10A,X
	0463-	A6 B5	0599	LDX *XSAVE
	0465-	4C 5C 02	0600	JMP PUSH
			0601 ;	
			0602 ;	DIGIT
			0603	
	0468-	85 44 49	0604	.BY \$85 'DIGI' \$D4
	046B-	47 49 D4		
	046E-	53 04	0605	.SI K-\$04
	0470-	72 04	0606 DIGIT	.SI =+2
	0472-	38	0607	SEC
	0473-	B5 02	0608	LDA *\$02,X
	0475-	E9 30	0609	SBC #\$30
	0477-	30 18	0610	BMI DIGIT2
	0479-	C9 0A	0611	CMP #\$0A
	047B-	30 07	0612	BMI DIGIT1
	047D-	38	0613	SEC
	047E-	E9 07	0614	SBC #\$07

0480- C9 0A	0615	CMP #\$0A
0482- 30 0D	0616	BMI DIGIT2
0484- D5 00	0617	DIGIT1
0486- 10 09	0618	BPL DIGIT2
0488- 95 02	0619	STA *\$02,X
048A- A9 01	0620	LDA #\$01
048C- 48	0621	PHA
048D- 98	0622	TYA
048E- 4C 5E 02	0623	JMP PUT EXIT TRUE WITH CONVERTED VALUE
0491- 98	0624	DIGIT2
0492- 48	0625	TYA
0493- E8	0626	PHA
0494- E8	0627	INX
0495- 4C 5E 02	0628	JMP PUT
	0629	
	0630 ;	(ROLL)
	0631	
0498- 86 28 52	0632	.BY \$86 '(ROLL' \$A9
049B- 4F 4C 4C		
049E- A9		
049F- 68 04	0633	.SI DIGIT-\$08
04A1- A3 04	0634	PROLL
04A3- 86 B5	0635	STX *XSAVE
04A5- B5 00	0636	LDA *\$00,X
04A7- 0A	0637	ASL A
04A8- 18	0638	CLC
04A9- 65 B5	0639	ADC *XSAVE
04AB- AA	0640	TAX
04AC- B5 00	0641	LDA *\$00,X
04AE- 48	0642	PHA
04AF- B5 01	0643	LDA *\$01,X
04B1- 48	0644	PHA
04B2- CA	0645	DEX
04B3- CA	0646	PROLL1
04B4- B5 01	0647	LDA *\$01,X
04B6- 95 03	0648	STA *\$03,X
04B8- E4 B5	0649	CPX *XSAVE
04BA- B0 F7	0650	BCS PROLL1
04BC- A6 B5	0651	LDX *XSAVE
04BE- E8	0652	INX
04BF- E8	0653	INX
04C0- 68	0654	PLA
04C1- 4C 5E 02	0655	JMP PUT
	0656	
	0657 ;	(FIND)
	0658	
04C4- 86 28 46	0659	.BY \$86 '(FIND' \$A9
04C7- 49 4E 44		
04CA- A9		
04CB- 98 04	0660	.SI PROLL-\$09
04CD- CF 04	0661	PFIND
04CF- A9 02	0662	.SI =+2
04D1- 20 3E 03	0663	LDA #\$02
04D4- 86 B5	0664	JSR SETUP
04D6- A0 00	0665	STX *XSAVE
04D8- B1 A6	0666	LDY #\$00
04DA- 51 A8	0667	LDA (N),Y
04DC- 29 3F	0668	EOR (N+2),Y
	AND #\$3F	

04DE- D0 2D	0669	BNE PFIND4
04E0- C8	0670	PFIND2
04E1- B1 A6	0671	INY
04E3- 51 A8	0672	LDA (N),Y
04E5- 0A	0673	EOR (N+2),Y
04E6- D0 23	0674	ASL A
04E8- 90 F6	0675	BNE PFIND3
04EA- A6 B5	0676	BCC PFIND2
04EC- CA	0677	LDX *XSAVE
04ED- CA	0678	DEX
04EE- CA	0679	DEX
04EF- CA	0680	DEX
04F0- 18	0681	CLC
04F1- 98	0682	TYA
04F2- 69 05	0683	ADC #\$05
04F4- 65 A6	0684	ADC *N
04F6- 95 02	0685	STA *\$02,X
04F8- A0 00	0686	LDY #\$00
04FA- 98	0687	TYA
04FB- 65 A7	0688	ADC *N+1
04FD- 95 03	0689	STA *\$03,X
04FF- 94 01	0690	STY *\$01,X
0501- B1 A6	0691	LDA (N),Y
0503- 95 00	0692	STA *\$00,X
0505- A9 01	0693	LDA #\$01
0507- 48	0694	PHA
0508- 4C 5C 02	0695	JMP PUSH
050B- B0 05	0696	BCS PFIND5
050D- C8	0697	PFIND4
050E- B1 A6	0698	INY
0510- 10 FB	0699	BPL PFIND4
0512- C8	0700	PFIND5
0513- B1 A6	0701	INY
0515- AA	0702	LDA (N),Y
0516- C8	0703	TAX
0517- B1 A6	0704	INY
0519- 85 A7	0705	LDA (N),Y
051B- 86 A6	0706	STA *N+1
051D- 05 A6	0707	STX *N
051F- D0 B5	0708	ORA *N
0521- A6 B5	0709	BNE PFIND1
0523- A9 00	0710	LDX *XSAVE
0525- 48	0711	LDY #\$00
0526- 4C 5C 02	0712	JMP PUSH FALSE EXIT UPON READING NULL LINK
	0713	
	0714 ;	ENCLOSE
	0715	
0529- 87 45 4E	0716	.BY \$87 'ENCLOS' \$C5
052C- 43 4C 4F		
052F- 53 C5		
0531- C4 04	0717	.SI PFIND-\$09
0533- 35 05	0718	ENCL
0535- A9 02	0719	.SI =+2
0537- 20 3E 03	0720	LDA #\$02
053A- 8A	0721	JSR SETUP
053B- 38	0722	TXA
053C- E9 08	0723	SEC
053E- AA	0724	SBC #\$08
	TAX	

053F-	88	0725	DEY
0540-	C6 A9	0726	DEC *N+3
0542-	94 05	0727	STY *\$05,X
0544-	94 03	0728	STY *\$03,X
0546-	94 01	0729	STY *\$01,X
0548-	C8	0730 ENCL1	INY
0549-	D0 08	0731	BNE ENCL2
054B-	F6 05	0732	INC *\$05,X
054D-	F6 03	0733	INC *\$03,X
054F-	F6 01	0734	INC *\$01,X
0551-	E6 A9	0735	INC *N+3
0553-	B1 A8	0736 ENCL2	LDA (N+2),Y
0555-	C5 A6	0737	CMP *N
0557-	F0 EF	0738	BEQ ENCL1
		0739	
0559-	94 04	0740	STY *\$04,X
055B-	B1 A8	0741 ENCL4	LDA (N+2),Y
055D-	D0 0E	0742	BNE ENCL6
055F-	94 02	0743	STY *\$02,X
0561-	94 00	0744	STY *\$00,X
0563-	98	0745	TYA
0564-	D5 04	0746	CMP *\$04,X
0566-	D0 02	0747	BNE ENCL5
0568-	F6 02	0748	INC *\$02,X
056A-	4C 63 02	0749 ENCL5	JMP NEXT
		0750	
056D-	C8	0751 ENCL6	INY
056E-	D0 06	0752	BNE ENCL7
0570-	F6 03	0753	INC *\$03,X
0572-	F6 01	0754	INC *\$01,X
0574-	E6 A9	0755	INC *N+3
0576-	C5 A6	0756 ENCL7	CMP *N
0578-	D0 E1	0757	BNE ENCL4
057A-	94 00	0758	STY *\$00,X
057C-	98	0759	TYA
057D-	D0 02	0760	BNE ENCL8
057F-	D6 03	0761	DEC *\$03,X
0581-	88	0762 ENCL8	DEY
0582-	94 02	0763	STY *\$02,X
0584-	4C 63 02	0764	JMP NEXT
		0765	
		0766	.CT FTH15

0777 ;  
 0778 ;\*\*\*\*\*  
 0779 ;\*\* SK-FORTH (79-STANDARD) \*\*  
 0780 ;\*\* HDE MINI/SYKES DISK VERSION \*\*  
 0781 ;\*\* BY JACK W. BROWN \*\*  
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 0785 ;\*\* P. O. BOX 397 \*\*  
 0786 ;\*\* NEW WESTMINSTER, B. C. \*\*  
 0787 ;\*\* V3L 4Y7, CANADA \*\*  
 0788 ;\*\*\*\*\*  
 0789 ;

		0790	
		0791 ;*****	
		0792 ;** SYM/KIM-FORTH PART 2 **	
		0793 ;** DISK FILE FTH15 **	
		0794 ;*****	
		0795	
		0796 ; EMIT	
		0797	
0587-	84 45 4D	0798	.BY \$84 'EMI' \$D4
058A-	49 D4		
058C-	29 05	0799	.SI ENCL-\$0A
058E-	98 18	0800 EMIT	.SI XEMIT
		0801	
		0802 ; KEY	
		0803	
0590-	83 4B 45	0804	.BY \$83 'KE' \$D9
0593-	D9		
0594-	87 05	0805	.SI EMIT-\$07
0596-	81 19	0806 KEY	.SI XKEY
		0807	
		0808 ; ?TERMINAL	
		0809	
0598-	89 3F 54	0810	.BY \$89 '?TERMINA' \$CC
059B-	45 52 4D		
059E-	49 4E 41		
05A1-	CC		
05A2-	90 05	0811	.SI KEY-\$06
05A4-	87 19	0812 QTERM	.SI XQTER
		0813	
		0814 ; CR	
		0815	
05A6-	82 43 D2	0816	.BY \$82 'C' \$D2
05A9-	98 05	0817	.SI QTERM-\$0C
05AB-	A3 19	0818 CR	.SI XCR
		0819	
		0820 ; CMOVE	
		0821	
05AD-	85 43 4D	0822	.BY \$85 'CMOV' \$C5
05B0-	4F 56 C5		
05B3-	A6 05	0823	.SI CR-\$05
05B5-	B7 05	0824 CMOVE	.SI +=2
05B7-	A9 03	0825	LDA #\$03
05B9-	20 3E 03	0826	JSR SETUP
05BC-	24 A7	0827	BIT *N+1 ;CHECK FOR -VE COUNT
05BE-	30 0E	0828	BMI CMOVE2
05C0-	A5 A6	0829	LDA *N ;CHECK FOR 0 COUNT
05C2-	05 A7	0830	ORA *N+1
05C4-	F0 08	0831	BEQ CMOVE2
05C6-	C4 A6	0832 CMOVE1	CPY *N
05C8-	D0 07	0833	BNE CMOVE3
05CA-	C6 A7	0834	DEC *N+1
05CC-	10 03	0835	BPL CMOVE3
05CE-	4C 63 02	0836 CMOVE2	JMP NEXT
05D1-	B1 AA	0837 CMOVE3	LDA (N+4),Y
05D3-	91 A8	0838	STA (N+2),Y
05D5-	C8	0839	INY
05D6-	D0 EE	0840	BNE CMOVE1
05D8-	E6 AB	0841	INC *N+5

05DA-	E6 A9	0842	INC *N+3
05DC-	4C C6 05	0843	JMP CMOVE1
		0844	
		0845 ;	U*
		0846	
05DF-	82 55 AA	0847	.BY \$82 'U' \$AA
05E2-	AD 05	0848	.SI CMOVE-\$08
05E4-	E6 05	0849	USTAR
05E6-	B5 02	0850	.SI +=2
05E8-	85 A6	0851	LDA *\$02,X
05EA-	94 02	0852	STA *N
05EC-	B5 03	0853	STY *\$02,X
05EE-	85 A7	0854	LDA *\$03,X
05FO-	94 03	0855	STA *N+1
05F2-	A0 10	0856	STY *\$03,X
05F4-	16 02	0857	USTAR1
05F6-	36 03	0858	LDY #\$10 FOR 16 BITS
05F8-	36 00	0859	ASL *\$02,X
05FA-	36 01	0860	ROL *\$03,X
05FC-	90 15	0861	ROL *\$00,X
05FE-	18	0862	ROL *\$01,X
05FF-	A5 A6	0863	BCC USTAR2
0601-	75 02	0864	CLC
0603-	95 02	0865	LDA *N
0605-	A5 A7	0866	ADC *\$02,X
0607-	75 03	0867	STA *\$02,X
0609-	95 03	0868	ADC *\$03,X
060B-	90 06	0869	STA *\$03,X
060D-	F6 00	0870	BCC USTAR2
060F-	D0 02	0871	INC *\$00,X
0611-	F6 01	0872	BNE USTAR2
0613-	88	0873	INC *\$01,X
0614-	D0 DE	0874	DEY
0616-	4C 63 02	0875	BNE USTAR1
		0876	JMP NEXT
		0877 ;	U/MOD
		0878	
0619-	85 55 2F	0879	.BY \$85 'U/MO' \$C4
061C-	4D 4F C4		
061F-	DF 05	0880	.SI USTAR-\$05
0621-	23 06	0881	USTAS
0623-	B5 04	0882	.SI +=2
0625-	B4 02	0883	LDA *\$04,X
0627-	94 04	0884	LDY *\$02,X
0629-	0A	0885	STY *\$04,X
062A-	95 02	0886	ASL A
062C-	B5 05	0887	STA *\$02,X
062E-	B4 03	0888	LDA *\$05,X
0630-	94 05	0889	LDY *\$03,X
0632-	2A	0890	STY *\$05,X
0633-	95 03	0891	ROL A
0635-	A9 10	0892	STA *\$03,X
0637-	85 A6	0893	LDA #\$10 FOR 16 BITS
0639-	36 04	0894	USTAS1
063B-	36 05	0895	.SI +=2
063D-	38	0896	ROL *\$04,X
063E-	B5 04	0897	ROL *\$05,X
0640-	F5 00	0898	SEC
			LDA *\$04,X
			SBC *\$00,X

0642-	A8	0899	TAY
0643-	B5 05	0900	LDA *\$05,X
0645-	F5 01	0901	SBC *\$01,X
0647-	90 04	0902	BCC USLAS2
0649-	94 04	0903	STY *\$04,X
064B-	95 05	0904	STA *\$05,X
064D-	36 02	0905	USLAS2
064F-	36 03	0906	ROL *\$02,X
0651-	C6 A6	0907	ROL *\$03,X
0653-	D0 E4	0908	DEC *N
0655-	4C 33 04	0909	BNE USLAS1
		0910	JMP POP
		0911 ;	AND
0658-	83 41 4E	0912	.BY \$83 'AN' \$C4
065B-	C4	0913	
065C-	19 06	0914	.SI USLAS-\$08
065E-	60 06	0915	ANDD
0660-	B5 00	0916	.SI +=2
0662-	35 02	0917	LDA *\$00,X
0664-	48	0918	AND *\$02,X
0665-	B5 01	0919	PHA
0667-	35 03	0920	LDA *\$01,X
		0921	AND *\$03,X
0669-	E8	0922	BINARY
066A-	E8	0923	INX
066B-	4C 5E 02	0924	JMP PUT
		0925	
		0926 ;	OR
066E-	82 4F D2	0927	.BY \$82 'O' \$D2
0671-	58 06	0928	.SI ANDD-\$06
0673-	75 06	0929	.SI +=2
0675-	B5 00	0930	LDA *\$00,X
0677-	15 02	0931	ORA *\$02,X
0679-	48	0932	PHA
067A-	B5 01	0933	LDA *\$01,X
067C-	15 03	0934	ORA *\$03,X
067E-	E8	0935	INX
067F-	E8	0936	INX
0680-	4C 5E 02	0937	JMP PUT
		0938	
		0939	
		0940 ;	XOR
0683-	83 58 4F	0941	.SI OR-\$05
0686-	D2	0942	.BY \$83 'XO' \$D2
0687-	6E 06	0943	.SI OR-\$05
0689-	8B 06	0944	XOR
068B-	B5 00	0945	.SI +=2
068D-	55 02	0946	LDA *\$00,X
068F-	48	0947	EOR *\$02,X
0690-	B5 01	0948	PHA
0692-	55 03	0949	LDA *\$01,X
0694-	E8	0950	EOR *\$03,X
0695-	E8	0951	INX
0696-	4C 5E 02	0952	JMP PUT
		0953	
		0954 ;	SP@

0699-	83 53 50	0955		
069C-	C0	0956	.BY \$83 'SP' \$C0	
069D-	83 06	0957	.SI XOR-\$06	
069F-	A1 06	0958	SPAT	.SI =+2
06A1-	8A	0959	TXA	
06A2-	48	0960		
06A3-	A9 00	0961	PUSHOA	PHA
06A5-	4C 5C 02	0962	LDA #\$00	
		0963	JMP PUSH	
		0964		
		0965 ;	SP!	
		0966		
06A8-	83 53 50	0967	.BY \$83 'SP' \$A1	
06AB-	A1			
06AC-	99 06	0968	.SI SPAT-\$06	
06AE-	B0 06	0969	SPSTO	.SI =+2
06B0-	A0 06	0970	LDY #\$06	
06B2-	B1 B3	0971	LDA (UP),Y LOAD DATA STACK POINTER FROM	
06B4-	AA	0972	TAX SILENT USER VARIABLE SO.	
06B5-	4C 63 02	0973	JMP NEXT	
		0974		
		0975 ;	RP!	
		0976		
06B8-	83 52 50	0977	.BY \$83 'RP' \$A1	
06BB-	A1			
06BC-	A8 06	0978	.SI SPSTO-\$06	
06BE-	C0 06	0979	RPSTO	.SI =+2
06C0-	86 B5	0980	STX *XSAVE LOAD RETURN STACK POINTER	
06C2-	A0 08	0981	LDY #\$08 (MACHINE STACK POINTER) FROM	
06C4-	B1 B3	0982	LDA (UP),Y SILENT USER VARIABLE RO.	
06C6-	AA	0983	TAX	
06C7-	9A	0984	TXS	
06C8-	A6 B5	0985	LDX *XSAVE	
06CA-	4C 63 02	0986	JMP NEXT	
		0987		
		0988 ;	;S	
		0989		
06CD-	C2 3B D3	0990	.BY \$C2 ';' \$D3	
06D0-	B8 06	0991	.SI RPSTO-\$06	
06D2-	D4 06	0992	SEMIS	.SI =+2
06D4-	68	0993	PLA	
06D5-	85 AE	0994	STA *IP	
06D7-	68	0995	PLA	
06D8-	85 AF	0996	STA *IP+1	
06DA-	4C 63 02	0997	JMP NEXT	
		0998		
		0999 ;	LEAVE	
		1000		
06DD-	85 4C 45	1001	.BY \$85 'LEAV' \$C5	
06E0-	41 56 C5			
06E3-	CD 06	1002	.SI SEMIS-\$05	
06E5-	E7 06	1003	LEAVE	.SI =+2
06E7-	86 B5	1004	STX *XSAVE	
06E9-	BA	1005	TSX	
06EA-	BD 01 01	1006	LDA \$101,X	
06ED-	9D 03 01	1007	STA \$103,X	
06FO-	BD 02 01	1008	LDA \$102,X	

06F3-	9D 04 01	1009	STA \$104,X	
06F6-	A6 B5	1010	LDX *XSAVE	
06F8-	4C 63 02	1011	JMP NEXT	
		1012		
		1013 ;	>R	
		1014		
06FB-	82 3E D2	1015	.BY \$82 '>' \$D2	
06FE-	DD 06	1016	.SI LEAVE-\$08	
0700-	02 07	1017	TOR	.SI =+2
0702-	B5 01	1018	LDA *\$01,X MOVE HI BYTE	
0704-	48	1019	PHA TO RETURN STACK	
0705-	B5 00	1020	LDA *\$00,X THEN LOW BYTE	
0707-	48	1021	PHA TO RETURN STACK	
0708-	E8	1022	INX	
0709-	E8	1023	INX POPPING OFF DATA STACK	
070A-	4C 63 02	1024	JMP NEXT	
		1025		
		1026 ;	R>	
		1027		
070D-	82 52 BE	1028	.BY \$82 'R' \$BE	
0710-	FB 06	1029	.SI TOR-\$05	
0712-	14 07	1030	RFROM	.SI =+2
0714-	CA	1031	DEX	
0715-	CA	1032	DEX MAKE ROOM ON DATA STACK	
0716-	68	1033	PLA HIGH BYTE	
0717-	95 00	1034	STA *\$00,X	
0719-	68	1035	PLA THEN LOW BYTE	
071A-	95 01	1036	STA *\$01,X RESTORED TO DATA STACK	
071C-	4C 63 02	1037	JMP NEXT	
		1038		
		1039 ;	R@	
		1040		
071F-	82 52 CO	1041	.BY \$82 'R' \$CO	
0722-	0D 07	1042	.SI RFROM-\$05	
0724-	26 07	1043	R	.SI =+2
0726-	86 B5	1044	STX *XSAVE	
0728-	BA	1045	TSX ADDRESS RETURN STACK	
0729-	BD 01 01	1046	LDA \$101,X COPY BOTTOM VALUE	
072C-	48	1047	PHA TO DATA STACK	
072D-	BD 02 01	1048	LDA \$102,X	
0730-	A6 B5	1049	LDX *XSAVE	
0732-	4C 5C 02	1050	JMP PUSH	
		1051 ;		
		1052 ;	RDEPTH - PUSH RETURN STACK DEPTH	
		1053 ;		
0735-	86 52 44	1054	.BY \$86 'RDEPTH' \$C8	
0738-	45 50 54			
073B-	C8			
073C-	1F 07	1055	.SI R-\$05	
073E-	40 07	1056	RDEPTH	.SI =+2
0740-	86 B5	1057	STX *XSAVE	
0742-	BA	1058	TSX	
0743-	E8	1059	INX	
0744-	E8	1060	INX	
0745-	8A	1061	TXA	
0746-	A6 B5	1062	LDX *XSAVE	
0748-	49 FF	1063	EOR #\$FF	
074A-	4A	1064	LSR A82	

074B- 4C A2 06	1065	JMP PUSHOA
	1066 ;	
	1067 ;	O= DZBNE ZEQU
	1068	
074E- 82 30 BD	1069	.BY \$82 '0' \$BD
0751- 35 07	1070	.SI RDEPTH-\$09
0753- 55 07	1071 ZEQU	.SI +=2
0755- B5 00	1072	LDA *\$00,X
0757- 15 01	1073	ORA *\$01,X
0759- 94 01	1074	STY *\$01,X
075B- D0 01	1075	BNE ZEQU1
075D- C8	1076	INY
075E- 94 00	1077 ZEQU1	STY *\$00,X
0760- 4C 63 02	1078	JMP NEXT
	1079	
	1080 ;	O<
	1081	
0763- 82 30 BC	1082	.BY \$82 '0' \$BC
0766- 4E 07	1083	.SI ZEQU-\$05
0768- 6A 07	1084 ZLESS	.SI +=2
076A- 16 01	1085	ASL *\$01,X
076C- 98	1086	TYA
076D- 2A	1087	ROL A
076E- 94 01	1088	STY *\$01,X
0770- 95 00	1089	STA *\$00,X
0772- 4C 63 02	1090	JMP NEXT
	1091 ;	
	1092 ;	O>
	1093 ;	
0775- 82 30 BE	1094	.BY \$82 '0' \$BE
0778- 63 07	1095	.SI ZLESS-\$05
077A- 7C 07	1096 ZGREAT	.SI +=2
077C- B5 01	1097	LDA *\$01,X
077E- 94 01	1098	STY *\$01,X
0780- 30 05	1099	BMI ZGREAT1
0782- 15 00	1100	ORA *\$00,X
0784- F0 01	1101	BEQ ZGREAT1
0786- C8	1102	INY
0787- 94 00	1103 ZGREAT1	STY *\$00,X
0789- 4C 63 02	1104	JMP NEXT
	1105 ;	
	1106 ;	+
	1107	
078C- 81 AB	1108	.BY \$81 \$AB
078E- 75 07	1109	.SI ZGREAT-\$05
0790- 92 07	1110 PLUS	.SI +=2
0792- 18	1111	CLC
0793- B5 00	1112	LDA *\$00,X
0795- 75 02	1113	ADC *\$02,X
0797- 95 02	1114	STA *\$02,X
0799- B5 01	1115	LDA *\$01,X
079B- 75 03	1116	ADC *\$03,X
079D- 95 03	1117	STA *\$03,X
079F- 4C 33 04	1118	JMP POP
	1119	JKT
	1120 ;	DO= DZBNE ZEQU
	1121	
07A2- 83 44 30	1122	.BY \$83 'DO' \$BD

07A5- BD		
07A6- 8C 07	1123	.SI PLUS-\$04
07A8- AA 07	1124 DZEQU	.SI =+2
07AA- B5 00	1125	LDA *\$00,X
07AC- 15 01	1126	ORA *\$01,X
07AE- 15 02	1127	ORA *\$02,X
07B0- 15 03	1128	ORA *\$03,X
07B2- 94 03	1129	STY *\$03,X
07B4- D0 01	1130	BNE DZEQU1
07B6- C8	1131	INY
07B7- 94 02	1132 DZEQU1	STY *\$02,X
07B9- 4C 33 04	1133	JMP POP
	1134	
	1135 ;	DO<
	1136	
07BC- 83 44 30	1137	.BY \$83 'DO' \$BC
07BF- BC		
07C0- A2 07	1138	.SI DZEQU-\$06
07C2- C4 07	1139 DZLESS	.SI =+2
07C4- 16 03	1140	ASL *\$03,X
07C6- 98	1141	TYA
07C7- 2A	1142	ROL A
07C8- 94 03	1143	STY *\$03,X
07CA- 95 02	1144	STA *\$02,X
07CC- 4C 33 04	1145	JMP POP
	1146	
	1147 ;	D+
	1148	
07CF- 82 44 AB	1149	.BY \$82 'D' \$AB
07D2- BC 07	1150	.SI DZLESS-\$06
07D4- D6 07	1151 DPLUS	.SI =+2
07D6- 18	1152	CLC
07D7- B5 02	1153	LDA *\$02,X
07D9- 75 06	1154	ADC *\$06,X
07DB- 95 06	1155	STA *\$06,X
07DD- B5 03	1156	LDA *\$03,X
07DF- 75 07	1157	ADC *\$07,X
07E1- 95 07	1158	STA *\$07,X
07E3- B5 00	1159	LDA *\$00,X
07E5- 75 04	1160	ADC *\$04,X
07E7- 95 04	1161	STA *\$04,X
07E9- B5 01	1162	LDA *\$01,X
07EB- 75 05	1163	ADC *\$05,X
07ED- 95 05	1164	STA *\$05,X
07EF- 4C 31 04	1165	JMP POPTWO
	1166	
	1167 ;	NEGATE
	1168	
07F2- 86 4E 45	1169	.BY \$86 'NEGAT' \$C5
07F5- 47 41 54		
07F8- C5		
07F9- CF 07	1170	.SI DPLUS-\$05
07FB- FD 07	1171 NEGATE	.SI =+2
07FD- 38	1172	SEC
07FE- 98	1173	TYA
07FF- F5 00	1174	SBC *\$00,X
0801- 95 00	1175	STA *\$00,X
0803- 98	1176	TYA

0804- F5 01	1177	SBC *\$01,X
0806- 95 01	1178	STA *\$01,X
0808- 4C 63 02	1179	JMP NEXT
	1180	
	1181 ;	DNEGATE
	1182	
080B- 87 44 4E	1183	.BY \$87 'DNEGAT' \$C5
080E- 45 47 41		
0811- 54 C5		
0813- F2 07	1184	.SI NEGATE-\$09
0815- 17 08	1185	DNEGATE
0817- 38	1186	.SI =+2
0818- 98	1187	SEC
0819- F5 02	1188	TYA
081B- 95 02	1189	SBC *\$02,X
081D- 98	1190	STA *\$02,X
081E- F5 03	1191	TYA
0820- 95 03	1192	SBC *\$03,X
0822- 4C FE 07	1193	STA *\$03,X
	1194	JMP NEGATE+3
	1195 ;	OVER
	1196	
0825- 84 4F 56	1197	.BY \$84 'OVE' \$D2
0828- 45 D2		
082A- OB 08	1198	.SI DNEGATE-\$0A
082C- 2E 08	1199	OVER
082E- B5 02	1200	.SI =+2
0830- 48	1201	LDA *\$02,X
0831- B5 03	1202	PHA
0833- 4C 5C 02	1203	LDA *\$03,X
	1204	JMP PUSH
	1205 ;	DROP
	1206	
0836- 84 44 52	1207	.BY \$84 'DRO' \$D0
0839- 4F D0		
083B- 25 08	1208	.SI OVER-\$07
083D- 33 04	1209	DROP
	1210	.SI POP
	1211 ;	SWAP
	1212	
083F- 84 53 57	1213	.BY \$84 'SWA' \$D0
0842- 41 D0		
0844- 36 08	1214	.SI DROP-\$07
0846- 48 08	1215	SWAP
0848- B5 02	1216	.SI =+2
084A- 48	1217	LDA *\$02,X
084B- B5 00	1218	PHA
084D- 95 02	1219	LDA *\$00,X
084F- B5 03	1220	STA *\$02,X
0851- B4 01	1221	LDA *\$03,X
0853- 94 03	1222	LDY *\$01,X
0855- 4C 5E 02	1223	STY *\$03,X
	1224	JMP PUT
	1225 ;	DUP
	1226	
0858- 83 44 55	1227	.BY \$83 'DU' \$D0
085B- D0		
085C- 3F 08	1228	.SI SWAP-\$07

085E- 60 08	1229	DUP	.SI =+2
0860- B5 00	1230	LDA *\$00,X	
0862- 48	1231	PHA	
0863- B5 01	1232	LDA *\$01,X	
0865- 4C 5C 02	1233	JMP PUSH	
	1234		
	1235 ;	+!	
	1236		
0868- 82 2B A1	1237	.BY \$82 '+' \$A1	
086B- 58 08	1238	.SI DUP-\$06	
086D- 6F 08	1239	.SI =+2	
086F- 18	1240	CLC	
0870- A1 00	1241	LDA (\$00,X) FETCH 16 BIT VALUE ADDRESSED	
0872- 75 02	1242	ADC *\$02,X BY BOTTOM OF STACK, ADDING TO	
0874- 81 00	1243	STA (\$00,X) SECOND ITEM ON STACK, AND	
0876- F6 00	1244	INC *\$00,X RETURN TO MEMORY	
0878- D0 02	1245	BNE PSTOR1	
087A- F6 01	1246	INC *\$01,X	
087C- A1 00	1247	LDA (\$00,X)	
087E- 75 03	1248	ADC *\$03,X	
0880- 81 00	1249	STA (\$00,X)	
0882- 4C 31 04	1250	JMP POPTWO	
	1251		
	1252 ;	TOGGLE	
	1253		
0885- 86 54 4F	1254	.BY \$86 'TOGGL' \$C5	
0888- 47 47 4C			
088B- C5			
088C- 68 08	1255	.SI PSTOR-\$05	
088E- 90 08	1256	.SI =+2	
0890- A1 02	1257	LDA (\$02,X) COMPLEMENT BITS IN MEMORY ADDRESS	
0892- 55 00	1258	EOR *\$00,X SECOND ON STACK, BY PATTERN	
0894- 81 02	1259	STA (2,X) ON BOTTOM OF STACK.	
0896- 4C 31 04	1260	JMP POPTWO	
	1261		
	1262 ;	@	
	1263		
0899- 81 C0	1264	.BY \$81 \$C0	
089B- 85 08	1265	.SI TOGGL-\$09	
089D- 9F 08	1266	.SI =+2	
089F- A1 00	1267	LDA (\$00,X)	
08A1- 48	1268	PHA	
08A2- F6 00	1269	INC *\$00,X	
08A4- D0 02	1270	BNE AT1	
08A6- F6 01	1271	INC *\$01,X	
08A8- A1 00	1272	LDA (\$00,X)	
08AA- 4C 5E 02	1273	JMP PUT	
	1274		
	1275 ;	C@	
	1276		
08AD- 82 43 C0	1277	.BY \$82 'C' \$C0	
08B0- 99 08	1278	.SI AT-\$04	
08B2- B4 08	1279	.SI =+2	
08B4- A1 00	1280	LDA (\$00,X) FETCH BYTE ADDRESSED BY BOTTOM	
08B6- 95 00	1281	STA *\$00,X OF STACK, ZEROING	
08B8- 94 01	1282	STY *\$01,X	
08BA- 4C 63 02	1283	JMP NEXT	
	1284		

	1285 ;	!	
	1286		
08BD- 81 A1	1287	.BY \$81 \$A1	
08BF- AD 08	1288	.SI CAT-\$05	
08C1- C3 08	1289	STORE .SI +=2	
08C3- B5 02	1290	LDA *\$02,X	
08C5- 81 00	1291	STA (\$00,X) STORE 2ND 16 BIT VALUE ON STACK	
08C7- F6 00	1292	INC *\$00,X TO MEMORY ADDRESSED BY	
08C9- D0 02	1293	BNE STORE1	
08CB- F6 01	1294	INC *\$01,X BOTTOM OF STACK	
08CD- B5 03	1295	STORE1 LDA *\$03,X	
08CF- 81 00	1296	STA (\$00,X)	
08D1- 4C 31 04	1297	JMP POPTWO	
	1298		
	1299 ;	C!	
	1300		
08D4- 82 43 A1	1301	.BY \$82 'C' \$A1	
08D7- BD 08	1302	.SI STORE-\$04	
08D9- DB 08	1303	CSTOR .SI +=2	
08DB- B5 02	1304	LDA *\$02,X	
08DD- 81 00	1305	STA (\$00,X)	
08DF- 4C 31 04	1306	JMP POPTWO	
	1307		
	1308 ;	:	
	1309		
08E2- C1 BA	1310	.BY \$C1 \$BA	
08E4- D4 08	1311	.SI CSTOR-\$05	
08E6- FC 08	1312	COLON .SI DOCOL	
08E8- 1C 0D	1313	.SI QEXEC	
08EA- D8 OC	1314	.SI SCSP	
08EC- 98 OA	1315	.SI CURR	
08EE- 9D 08	1316	.SI AT	
08FO- 8B OA	1317	.SI CON	
08F2- C1 08	1318	.SI STORE	
08F4- 8D 11	1319	.SI CREAT	
08F6- B1 OD	1320	.SI SMUDG	
08F8- 9D OD	1321	.SI RBRAC	
08FA- EC OD	1322	.SI PSCOD	
	1323		
08FC- A5 AF	1324	DOCOL LDA *IP+1	
08FE- 48	1325	PHA	
08FF- A5 AE	1326	LDA *IP	
0901- 48	1327	PHA	
0902- 20 F8 02	1328	JSR TCOLON MARK START OF TRACED COLON	
0905- 18	1329	CLC	
0906- A5 B1	1330	LDA *W	
0908- 69 02	1331	ADC #\$02	
090A- 85 AE	1332	STA *IP	
090C- 98	1333	TYA	
090D- 65 B2	1334	ADC *W+1	
090F- 85 AF	1335	STA *IP+1	
0911- 4C 63 02	1336	JMP NEXT	
	1337		
	1338 ;	EXIT	
	1339		
0914- 84 45 58	1340	.BY \$84 'EXI' \$D4	
0917- 49 D4			
0919- E2 08	1341	.SI COLON-\$04	

091B- FC 08	1342	EXIT	.SI DOCOL
091D- 12 07	1343		.SI RFROM
091F- 3D 08	1344		.SI DROP
0921- D2 06	1345		.SI SEMIS
	1346		
	1347 ;	;	
	1348		
0923- C1 BB	1349		.BY \$C1 \$BB
0925- 14 09	1350		.SI EXIT-\$07
0927- FC 08	1351	SEMCOL	.SI DOCOL
0929- 44 OD	1352		.SI QCSP
0928- 79 OD	1353		.SI COMP
092D- D2 06	1354		.SI SEMIS
092F- B1 OD	1355		.SI SMUDG
0931- 8F OD	1356		.SI LBRAC
0933- D2 06	1357		.SI SEMIS
	1358		
	1359 ;	CONSTANT	
	1360		
0935- 88 43 4F	1361		.BY \$88 'CONSTAN' \$D4
0938- 4E 53 54			
093B- 41 4E D4			
093E- 23 09	1362		.SI SEMCOL-\$04
0940- FC 08	1363	CONST	.SI DOCOL
0942- 8D 11	1364		.SI CREAT
0944- 19 08	1365		.SI COMMA
0946- EC OD	1366		.SI PSCOD
	1367		
0948- A0 02	1368	DOCON	LDY #\$02
094A- B1 B1	1369		LDA (W),Y
094C- 48	1370		PHA
094D- C8	1371		INY
094E- B1 B1	1372		LDA (W),Y
0950- 4C 5C 02	1373		JMP PUSH
	1374		
	1375 ;	VARIABLE	
	1376		
0953- 88 56 41	1377		.BY \$88 'VARIABL' \$C5
0956- 52 49 41			
0959- 42 4C C5			
095C- 35 09	1378		.SI CONST-\$0B
095E- FC 08	1379	VAR	.SI DOCOL
0960- 8D 11	1380		.SI CREAT
0962- 88 09	1381		.SI ZERO
0964- 19 08	1382		.SI COMMA
0966- D2 06	1383		.SI SEMIS
	1384		
	1385 ;	USER	
	1386		
0968- 84 55 53	1387		.BY \$84 'USE' \$D2
096B- 45 D2			
096D- 53 09	1388		.SI VAR-\$0B
096F- FC 08	1389	USER	.SI DOCOL
0971- 40 09	1390		.SI CONST
0973- EC OD	1391		.SI PSCOD
	1392		
0975- A0 02	1393	DOUSE	LDY #\$02
0977- 18	1394		CLC

0978- B1 B1	1395	LDA (W),Y
097A- 65 B3	1396	ADC *UP
097C- 48	1397	PHA
097D- A9 00	1398	LDA #\$00
097F- 65 B4	1399	ADC *UP+1
0981- 4C 5C 02	1400	JMP PUSH
	1401	
	1402 ;	0
	1403	
0984- 81 B0	1404	.BY \$81 \$B0
0986- 68 09	1405	.SI USER-\$07
0988- 48 09	1406 ZERO	.SI DOCON
098A- 00 00	1407	.SE \$0000
	1408	
	1409 ;	1
	1410	
098C- 81 B1	1411	.BY \$81 \$B1
098E- 84 09	1412	.SI ZERO-\$04
0990- 48 09	1413 ONE	.SI DOCON
0992- 01 00	1414	.SE \$0001
	1415	
	1416 ;	2
	1417	
0994- 81 B2	1418	.BY \$81 \$B2
0996- 8C 09	1419	.SI ONE-\$04
0998- 48 09	1420 TWO	.SI DOCON
099A- 02 00	1421	.SE \$0002
	1422	
	1423 ;	3
	1424	
099C- 81 B3	1425	.BY \$81 \$B3
099E- 94 09	1426	.SI TWO-\$04
09A0- 48 09	1427 THREE	.SI DOCON
09A2- 03 00	1428	.SE \$0003
	1429	
	1430 ;	BL
	1431	
09A4- 82 42 CC	1432	.BY \$82 'B' \$CC
09A7- 9C 09	1433	.SI THREE-\$04
09A9- 48 09	1434 BL	.SI DOCON
09AB- 20 00	1435	.SE \$0020
	1436	
	1437 ;	TW - TERMINAL WIDTH
	1438	
09AD- 82 54 D7	1439	.BY \$82 'T' \$D7
09B0- A4 09	1440	.SI BL-\$05
09B2- 48 09	1441 TW	.SI DOCON
09B4- 4F 00	1442	.SE TWIDTH
	1443	
	1444 ;	C/L
	1445	
09B6- 83 43 2F	1446	.BY \$83 'C/' \$CC
09B9- CC		
09BA- AD 09	1447	.SI TW-\$05
09BC- 48 09	1448 CSLL	.SI DOCON
09BE- 40 00	1449	.SE \$0040
	1450	
	1451 ;	FIRST

	1452	
09C0- 85 46 49	1453	.BY \$85 'FIRS' \$D4
09C3- 52 53 D4		
09C6- B6 09	1454	.SI CSLL-\$06
09C8- 48 09	1455 FIRST	.SI DOCON
09CA- 78 57	1456	.SE DAREA
	1457	
	1458 ;	LIMIT
	1459	
09CC- 85 4C 49	1460	.BY \$85 'LIMI' \$D4
09CF- 4D 49 D4		
09D2- C0 09	1461	.SI FIRST-\$08
09D4- 48 09	1462 LIMIT	.SI DOCON
09D6- 80 5F	1463	.SE UAREA BUFFERS END AT USER AREA
	1464	
	1465 ;	B/BUF - BYTES PER BUFFER
	1466	
09D8- 85 42 2F	1467	.BY \$85 'B/BU' \$C6
09DB- 42 55 C6		
09DE- CC 09	1468	.SI LIMIT-\$08
09E0- 48 09	1469 BBUF	.SI DOCON
09E2- 00 04	1470	.SE BBUF>
	1471	
	1472 ;	S/BLK - NUMBER OF SECTORS PER BLOCK
	1473	
09E4- 85 53 2F	1474	.BY \$85 'S/BL' \$CB
09E7- 42 4C CB		
09EA- D8 09	1475	.SI BBUF-\$08
09EC- 48 09	1476 SBLK	.SI DOCON
09EE- 08 00	1477	.SE SBLK>
	1478	
	1479 ;	NBUF - NUMBER OF BUFFERS
	1480	
09F0- 84 4E 42	1481	.BY \$84 'NBU' \$C6
09F3- 55 C6		
09F5- E4 09	1482	.SI SBLK-\$08
09F7- 48 09	1483 NBUF	.SI DOCON
09F9- 02 00	1484	.SE NBUF>
	1485	
	1486 ;	B/SCR - BUFFERS PER SCREEN
	1487	
09FB- 85 42 2F	1488	.BY \$85 'B/SC' \$D2
09FE- 53 43 D2		
0A01- F0 09	1489	.SI NBUF-\$07
0A03- 48 09	1490 BSCR	.SI DOCON
0A05- 01 00	1491	.SE BSCR>
	1492	
	1493	.CT FTH20
	1494 ;	
1495 ;*****		
1496 ;**		SK-FORTH (79-STANDARD) **
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 1506 ;  
 1507 ;  
 1508 ;\*\*\*\*\*  
 1509 ;\*\* SYM/KIM FORTH PART 3 \*\*  
 1510 ;\*\* DISK FILE FTH20 \*\*  
 1511 ;\*\*\*\*\*  
 1512 ;  
 1513 ; +ORIGIN  
 1514 ;  
 OA07- 87 2B 4F 1515 .BY \$87 '+ORIGI' \$CE  
 OA0A- 52 49 47 ;  
 OA0D- 49 CE ;  
 OA0F- FB 09 1516 .SI BSCR-\$08  
 OA11- FC 08 1517 PORIG .SI DOCOL  
 OA13- 49 02 1518 .SI LIT  
 OA15- 00 02 1519 .SE ENTER  
 OA17- 90 07 1520 .SI PLUS  
 OA19- D2 06 1521 .SI SEMIS  
 1522 ;  
 1523 ; TIB  
 1524 ;  
 OA1B- 83 54 49 1525 .BY \$83 'TI' \$C2  
 OA1E- C2 ;  
 OA1F- 07 OA 1526 .SI PORIG-\$0A  
 OA21- 75 09 1527 TIB .SI DOUSE  
 OA23- OA 1528 .BY \$0A  
 1529 ;  
 1530 ; WIDTH  
 1531 ;  
 OA24- 85 57 49 1532 .BY \$85 'WIDT' \$C8  
 OA27- 44 54 C8 ;  
 OA2A- 1B OA 1533 .SI TIB-\$06  
 OA2C- 75 09 1534 WIDTH .SI DOUSE  
 OA2E- OC 1535 .BY \$0C  
 1536 ;  
 1537 ; WARNING  
 1538 ;  
 OA2F- 87 57 41 1539 .BY \$87 'WARNIN' \$C7  
 OA32- 52 4E 49 ;  
 OA35- 4E C7 ;  
 OA37- 24 OA 1540 .SI WIDTH-\$08  
 OA39- 75 09 1541 WARN .SI DOUSE  
 OA3B- OE 1542 .BY \$0E  
 1543 ;  
 1544 ; FENCE  
 1545 ;  
 OA3C- 85 46 45 1546 .BY \$85 'FENC' \$C5  
 OA3F- 4E 43 C5 ;  
 OA42- 2F OA 1547 .SI WARN-\$0A  
 OA44- 75 09 1548 FENCE .SI DOUSE  
 OA46- 10 1549 .BY \$10  
 1550 ;  
 1551 ; DP

1552 ;  
 1553 .BY \$82 'D' \$DO  
 1554 .SI FENCE-\$08  
 1555 DP .SI DOUSE  
 1556 .BY \$12  
 1557 ;  
 1558 ; VOC-LINK  
 1559 ;  
 1560 .BY \$88 'VOC-LIN' \$CB  
 1561 .SI DP-\$05  
 1562 VOCL .SI DOUSE  
 1563 .BY \$14  
 1564 ;  
 1565 ; BLK  
 1566 ;  
 1567 .BY \$83 'BL' \$CB  
 1568 .SI VOCL-\$0B  
 1569 BLK .SI DOUSE  
 1570 .BY \$16  
 1571 ;  
 1572 ; >IN  
 1573 ;  
 1574 .BY \$83 '>I' \$CE  
 1575 .SI BLK-\$06  
 1576 IN .SI DOUSE  
 1577 .BY \$18  
 1578 ;  
 1579 ; OUT  
 1580 ;  
 1581 .BY \$83 'OU' \$D4  
 1582 .SI IN-\$06  
 1583 OUT .SI DOUSE  
 1584 .BY \$1A  
 1585 ;  
 1586 ; SCR  
 1587 ;  
 1588 .BY \$83 'SC' \$D2  
 1589 .SI OUT-\$06  
 1590 SCR .SI DOUSE  
 1591 .BY \$1C  
 1592 ;  
 1593 ; CONTEXT  
 1594 ;  
 1595 .BY \$87 'CONTEX' \$D4  
 1596 .SI SCR-\$06  
 1597 CON .SI DOUSE  
 1598 .BY \$20  
 1599 ;  
 1600 ; CURRENT  
 1601 ;

OA8E- 87 43 55 1602 .BY \$87 'CURREN' \$D4  
 OA91- 52 52 45 1603 .SI CON-\$OA  
 OA94- 4E D4 1604 CURR .SI DOUSE  
 OA96- 81 OA 1605 .BY \$22  
 1606  
 1607 ; STATE  
 1608  
 OA9B- 85 53 54 1609 .BY \$85 'STAT' \$C5  
 OA9E- 41 54 C5 1610 .SI CURR-\$OA  
 OAA1- 8E OA 1611 STATE .SI DOUSE  
 OAA3- 75 09 1612 .BY \$24  
 1613  
 1614 ; BASE  
 1615  
 OAA6- 84 42 41 1616 .BY \$84 'BAS' \$C5  
 OAA9- 53 C5 1617 .SI STATE-\$08  
 OAA8- 75 09 1618 BASE .SI DOUSE  
 OAAF- 26 1619 .BY \$26  
 1620  
 1621 ; DPL  
 1622  
 OAB0- 83 44 50 1623 .BY \$83 'DP' \$CC  
 OAB3- CC  
 OAB4- A6 OA 1624 .SI BASE-\$07  
 OAB6- 75 09 1625 DPL .SI DOUSE  
 OAB8- 28 1626 .BY \$28  
 1627  
 1628 ; FLD  
 1629  
 OAB9- 83 46 4C 1630 .BY \$83 'FL' \$C4  
 OABC- C4  
 OABD- B0 OA 1631 .SI DPL-\$06  
 OABF- 75 09 1632 FLD .SI DOUSE  
 OAC1- 2A 1633 .BY \$2A  
 1634  
 1635 ; CSP  
 1636  
 OAC2- 83 43 53 1637 .BY \$83 'CS' \$DO  
 OAC5- DO  
 OAC6- B9 OA 1638 .SI FLD-\$06  
 OAC8- 75 09 1639 CSP .SI DOUSE  
 OACA- 2C 1640 .BY \$2C  
 1641  
 1642 ; R#  
 1643  
 OACB- 82 52 A3 1644 .BY \$82 'R' \$A3  
 OACE- C2 OA 1645 .SI CSP-\$06  
 OADO- 75 09 1646 RNUM .SI DOUSE  
 OAD2- 2E 1647 .BY \$2E  
 1648  
 1649 ; HLD  
 1650  
 OAD3- 83 48 4C 1651 .BY \$83 'HL' \$C4  
 OAD6- C4

OAD7- CB 0A 1652 .SI RNUM-\$05  
 OAD9- 75 09 1653 HLD .SI DOUSE  
 OADE- 30 1654 .BY \$30  
 1655 ; 1+  
 1657  
 OADC- 82 31 AB 1658 .BY \$82 '1' \$AB  
 OADF- D3 0A 1659 .SI HLD-\$06  
 OAE1- FC 08 1660 ONEP .SI DOCOL  
 OAE3- 90 09 1661 .SI ONE  
 OAE5- 90 07 1662 .SI PLUS  
 OAE7- D2 06 1663 .SI SEMIS  
 1664  
 1665 ; 2+  
 1666  
 OAE9- 82 32 AB 1667 .BY \$82 '2' \$AB  
 OAEc- DC 0A 1668 .SI ONEP-\$05  
 OAEe- FC 08 1669 TWOP .SI DOCOL  
 OAF0- 98 09 1670 .SI TWO  
 OAF2- 90 07 1671 .SI PLUS  
 OAF4- D2 06 1672 .SI SEMIS  
 1673  
 1674 ; HERE  
 1675  
 OAF6- 84 48 45 1676 .BY \$84 'HER' \$C5  
 OAF9- 52 C5  
 OAFB- E9 0A 1677 .SI TWOP-\$05  
 OAFD- FC 08 1678 HERE .SI DOCOL  
 OAFF- 4C 0A 1679 .SI DP  
 OB01- 9D 08 1680 .SI AT  
 OB03- D2 06 1681 .SI SEMIS  
 1682  
 1683 ; ALLOT  
 1684  
 OB05- 85 41 4C 1685 .BY \$85 'ALLO' \$D4  
 OB08- 4C 4F D4  
 OBOB- F6 0A 1686 .SI HERE-\$07  
 OBOD- FC 08 1687 ALLOT .SI DOCOL  
 OBOF- 4C 0A 1688 .SI DP  
 OB11- 6D 08 1689 .SI PSTOR  
 OB13- D2 06 1690 .SI SEMIS  
 1691  
 1692 ;  
 1693  
 OB15- 81 AC 1694 .BY \$81 \$AC  
 OB17- 05 0B 1695 .SI ALLOT-\$08  
 OB19- FC 08 1696 COMMA .SI DOCOL  
 OB1B- FD 0A 1697 .SI HERE  
 OB1D- C1 08 1698 .SI STORE  
 OB1F- 98 09 1699 .SI TWO  
 OB21- 0D 0B 1700 .SI ALLOT  
 OB23- D2 06 1701 .SI SEMIS  
 1702  
 1703 ; C,  
 1704  
 OB25- 82 43 AC 1705 .BY \$82 'C' \$AC  
 OB28- 15 0B 1706 .SI COMMA-\$04  
 OB2A- FC 08 1707 CCOMM .SI DOCOL

OB2C- FD 0A	1708	.SI HERE
OB2E- D9 08	1709	.SI CSTAR
OB30- 90 09	1710	.SI ONE
OB32- OD 0B	1711	.SI ALLOT
OB34- D2 06	1712	.SI SEMIS
	1713	
	1714 ;	D-
	1715	
OB36- 81 AD	1716	.BY \$81 \$AD
OB38- 25 OB	1717	.SI CCOMM-\$05
OB3A- FC 08	1718 SUB	.SI DOCOL
OB3C- FB 07	1719	.SI NEGATE
OB3E- 90 07	1720	.SI PLUS
OB40- D2 06	1721	.SI SEMIS
	1722	
	1723 ;	D-
	1724	
OB42- 82 44 AD	1725	.BY \$82 'D' \$AD
OB45- 36 OB	1726	.SI SUB-\$04
OB47- FC 08	1727 DSUB	.SI DOCOL
OB49- 15 08	1728	.SI DNEGATE
OB4B- D4 07	1729	.SI DPLUS
OB4D- D2 06	1730	.SI SEMIS
	1731	
	1732 ;	1-
	1733	
OB4F- 82 31 AD	1734	.BY \$82 '1' \$AD
OB52- 42 OB	1735	.SI DSUB-\$05
OB54- FC 08	1736 ONESB	.SI DOCOL
OB56- 90 09	1737	.SI ONE
OB58- 3A OB	1738	.SI SUB
OB5A- D2 06	1739	.SI SEMIS
	1740	
	1741 ;	2-
	1742	
OB5C- 82 32 AD	1743	.BY \$82 '2' \$AD
OB5F- 4F OB	1744	.SI ONESB-\$05
OB61- FC 08	1745 TWOSB	.SI DOCOL
OB63- 98 09	1746	.SI TWO
OB65- 3A OB	1747	.SI SUB
OB67- D2 06	1748	.SI SEMIS
	1749	
	1750 ;	2*
	1751	
OB69- 82 32 AA	1752	.BY \$82 '2' \$AA
OB6C- 5C OB	1753	.SI TWOSB-\$05
OB6E- FC 08	1754 TWOSTAR	.SI DOCOL
OB70- 5E 08	1755	.SI DUP
OB72- 90 07	1756	.SI PLUS
OB74- D2 06	1757	.SI SEMIS
	1758	
	1759 ;	3*
	1760	
OB76- 82 33 AA	1761	.BY \$82 '3' \$AA
OB79- 69 OB	1762	.SI TWOSTAR-\$05
OB7B- FC 08	1763 THSTAR	.SI DOCOL
OB7D- 5E 08	1764	.SI DUP
OB7F- 5E 08	1765	.SI DUP

OB81- 90 07	1766	.SI PLUS
OB83- 90 07	1767	.SI PLUS
OB85- D2 06	1768	.SI SEMIS
	1769	
	1770 ;	=
	1771	
OB87- 81 BD	1772	.BY \$81 \$BD
OB89- 76 OB	1773	.SI THSTAR-\$05
OB8B- FC 08	1774 EQUAL	.SI DOCOL
OB8D- 3A OB	1775	.SI SUB
OB8F- 53 07	1776	.SI ZEQU
OB91- D2 06	1777	.SI SEMIS
	1778	
	1779 ;	D=
	1780	
OB93- 82 44 BD	1781	.BY \$82 'D' \$BD
OB96- 87 OB	1782	.SI EQUAL-\$04
OB98- FC 08	1783 DEQUAL	.SI DOCOL
OB9A- 47 OB	1784	.SI DSUB
OB9C- A8 07	1785	.SI DZEQU
OB9E- D2 06	1786	.SI SEMIS
	1787	
OBAO- 38	1788 SUB1	SEC
OBA1- B5 02	1789	LDA *\$02,X
OBA3- F5 00	1790	SBC *\$00,X
OBA5- B5 03	1791	LDA *\$03,X
OBA7- F5 01	1792	SBC *\$01,X
OBA9- 94 03	1793	STY *\$03,X
OBAB- 60	1794	RTS
	1795	
	1796 ;	U<
	1797	
OBAC- 82 55 BC	1798	.BY \$82 'U' \$BC
OBAF- 93 OB	1799	.SI DEQUAL-\$05
OBBI- B3 OB	1800 ULESS	.SI =+2
OBBI- 20 AO OB	1801	JSR SUB1
OBBI- B0 01	1802	ECS ULESS1
OBBI- C8	1803	INY
OBBI- 94 02	1804 ULESS1	STY *\$02,X
OBBI- 4C 33 04	1805	JMP POP
	1806	
	1807 ;	<
	1808	
OBBI- 81 BC	1809	.BY \$81 \$BC
OBBI- AC OB	1810	.SI ULESS-\$05
OBBI- C4 OB	1811 LESS	.SI =+2
OBBI- 20 AO OB	1812	JSR SUB1
OBBI- 50 02	1813	BVC LESS1
OBBI- 49 80	1814	EOR #\$80
OBBI- 10 01	1815 LESS1	BPL LESS2
OBBI- C8	1816	INY
OBBI- 94 02	1817 LESS2	STY *\$02,X
OBBI- 4C 33 04	1818	JMP POP
	1819	
OBBI- 38	1820 SUB2	SEC
OBBI- B5 04	1821	LDA *\$04,X
OBBI- F5 00	1822	SBC *\$00,X
OBBI- B5 05	1823	LDA *\$05,X

OBDA- F5 01	1824	SBC *\$01,X
OBDC- B5 06	1825	LDA *\$06,X
OBDE- F5 02	1826	SBC *\$02,X
OBE0- B5 07	1827	LDA *\$07,X
OBE2- F5 03	1828	SBC *\$03,X
OBE4- 94 07	1829	STY *\$07,X
OBE6- 60	1830	RTS
	1831	
	1832 ;	DU<
	1833	
OBE7- 83 44 55	1834	.BY \$83 'DU' \$BC
OBEA- BC		
OBEB- BE OB	1835	.SI LESS-\$04
OBED- EF OB	1836	DULESS
OBEF- 20 D3 OB	1837	.SI +=2
OBF2- B0 01	1838	JSR SUB2
OBF4- C8	1839	BCS DLESS1
OBF5- 94 06	1840	INY
OBF7- E8	1841	DULESS1
OBF8- E8	1842	STY *\$06,X
OBF9- 4C 31 04	1843	INX
	1844	INX
	1845 ;	INX
	1846	JMP POPTWO
OBFC- 82 44 BC	1847	.BY \$82 'D' \$BC
OBFF- E7 OB	1848	.SI DLESS-\$06
OC01- 03 OC	1849	DLESS
OC03- 20 D3 OB	1850	.SI +=2
OC06- 50 02	1851	JSR SUB2
OC08- 49 80	1852	BVC DLESS1
OC0A- 10 01	1853	EOR #\$80
OC0C- C8	1854	DLESS1
OC0D- 94 06	1855	BPL DLESS2
OC0F- E8	1856	INY
OC10- E8	1857	STY *\$06,X
OC11- 4C 31 04	1858	INX
	1859	INX
	1860 ;	>
	1861	JMP POPTWO
OC14- 81 BE	1862	.SI SWAP
OC16- FC OB	1863	.SI DLESS-\$05
OC18- FC 08	1864	GREAT
OC1A- 46 08	1865	.SI DOCOL
OC1C- C2 OB	1866	.SI SWAP
OC1E- D2 06	1867	.SI LESS
	1868	.SI SEMIS
	1869 ;	ROT
	1870	
OC20- 83 52 4F	1871	.BY \$83 'RO' \$D4
OC23- D4		
OC24- 14 OC	1872	.SI GREAT-\$04
OC26- FC 08	1873	ROT
OC28- 00 07	1874	.SI DOCOL
OC2A- 46 08	1875	.SI TOR
OC2C- 12 07	1876	.SI SWAP
OC2E- 46 08	1877	.SI RFROM
OC30- D2 06	1878	.SI SWAP
	1879	.SI SEMIS

	1880 ;	SPACE
	1881	
OC32- 85 53 50	1882	.BY \$85 'SPAC' \$C5
OC35- 41 43 C5		
OC38- 20 OC	1883	.SI ROT-\$06
OC3A- FC 08	1884	SPACE
OC3C- A9 09	1885	.SI DOCOL
OC3E- 8E 05	1886	.SI BL
OC40- D2 06	1887	.SI EMIT
	1888	.SI SEMIS
	1889 ;	?DUP
	1890	
OC42- 84 3F 44	1891	.BY \$84 '?DU' \$D0
OC45- 55 D0		
OC47- 32 OC	1892	.SI SPACE-\$08
OC49- FC 08	1893	DDUP
OC4B- 5E 08	1894	.SI DUP
OC4D- 9B 03	1895	.SI ZBRAN
OC4F- 04 00	1896	.SE DDUP1=-
OC51- 5E 08	1897	.SI DUP
OC53- D2 06	1898	DDUP1
	1899	.SI SEMIS
	1900 ;	TRAVERSE
	1901	
OC55- 88 54 52	1902	.BY \$88 'TRAVERS' \$C5
OC58- 41 56 45		
OC5B- 52 53 C5		
OC5E- 42 OC	1903	.SI DDUP-\$07
OC60- FC 08	1904	TRAV
OC62- 46 08	1905	.SI DOCOL
OC64- 2C 08	1906	OVER
OC66- 90 07	1907	.SI PLUS
OC68- 8F 02	1908	.SI CLIT
OC6A- 7F	1909	.BY \$7F
OC6B- 2C 08	1910	.SI OVER
OC6D- B2 08	1911	.SI CAT
OC6F- C2 0B	1912	.SI LESS
OC71- 9B 03	1913	.SI ZBRAN
OC73- F1 FF	1914	.SE TRAV1=-
OC75- 46 08	1915	.SI SWAP
OC77- 3D 08	1916	.SI DROP
OC79- D2 06	1917	.SI SEMIS
	1918	
	1919 ;	LATEST
	1920	
OC7B- 86 4C 41	1921	.BY \$86 'LATES' \$D4
OC7E- 54 45 53		
OC81- D4		
OC82- 55 OC	1922	.SI TRAV-\$0B
OC84- FC 08	1923	LATES
OC86- 98 0A	1924	.SI DOCOL
OC88- 9D 08	1925	.SI CURR
OC8A- 9D 08	1926	.SI AT
OC8C- D2 06	1927	.SI AT
	1928	.SI SEMIS
	1929 ;	LFA
	1930	
OC8E- 83 4C 46	1931	.BY \$83 'LF' \$C1

OC91- C1		
OC92- 7B OC	1932	.SI LATES-\$09
OC94- FC 08	1933 LFA	.SI DOCOL
OC96- 8F 02	1934	.SI CLIT
OC98- 04	1935	.BY \$04
OC99- 3A 0B	1936	.SI SUB
OC9B- D2 06	1937	.SI SEMIS
	1938	
	1939 ;	CFA
	1940	
OC9D- 83 43 46	1941	.BY \$83 'CF' \$C1
OCA0- C1		
OCA1- 8E OC	1942	.SI LFA-\$06
OCA3- FC 08	1943 CFA	.SI DOCOL
OCA5- 61 0B	1944	.SI TWOSB
OCA7- D2 06	1945	.SI SEMIS
	1946	
	1947 ;	NFA
	1948	
OCA9- 83 4E 46	1949	.BY \$83 'NF' \$C1
OCAC- C1		
OCAD- 9D OC	1950	.SI CFA-\$06
OCAP- FC 08	1951 NFA	.SI DOCOL
OCB1- 8F 02	1952	.SI CLIT
OCB3- 05	1953	.BY \$05
OCB4- 3A 0B	1954	.SI SUB
OCB6- 49 02	1955	.SI LIT
OCB8- FF FF	1956	.SE \$FFFF
OCBA- 60 OC	1957	.SI TRAV
OCBC- D2 06	1958	.SI SEMIS
	1959	
	1960 ;	PFA
	1961	
OCBE- 83 50 46	1962	.BY \$83 'PF' \$C1
OCC1- C1		
OCC2- A9 OC	1963	.SI NFA-\$06
OCC4- FC 08	1964 PFA	.SI DOCOL
OCC6- 90 09	1965	.SI ONE
OCC8- 60 OC	1966	.SI TRAV
OCCA- 8F 02	1967	.SI CLIT
OCCC- 05	1968	.BY \$05
OCCD- 90 07	1969	.SI PLUS
OCCF- D2 06	1970	.SI SEMIS
	1971	
	1972 ;	!CSP
	1973	
OCD1- 84 21 43	1974	.BY \$84 '!CS' \$D0
OCD4- 53 D0		
OCD6- BE OC	1975	.SI PFA-\$06
OCD8- FC 08	1976 SCSP	.SI DOCOL
OCD9- 9F 06	1977	.SI SPAT
OCDG- C8 0A	1978	.SI CSP
OCDH- C1 08	1979	.SI STORE
OCE0- D2 06	1980	.SI SEMIS
	1981	
	1982 ;	?ERROR
	1983	
OCE2- 86 3F 45	1984	.BY \$86 '?ERRO' \$D2

OCE5- 52 52 4F		
OCE8- D2		
OCE9- D1 OC	1985	.SI SCSP-\$07
OCEB- FC 08	1986 QERR	.SI DOCOL
OCED- 46 08	1987	.SI SWAP
OCEF- 9B 03	1988	.SI ZBRAN
OCF1- 08 00	1989	.SE QERR1==
OCF3- 24 11	1990	.SI ERROR
OCP5- 7C 03	1991	.SI BRAN
OCP7- 04 00	1992	.SE QERR2==
OCP9- 3D 08	1993 QERR1	.SI DROP
OCPB- D2 06	1994 QERR2	.SI SEMIS
	1995	
	1996 ;	?COMP
	1997	
OCFD- 85 3F 43	1998	.BY \$85 '?COM' \$D0
OD00- 4F 4D DO		
OD03- E2 OC	1999	.SI QERR-\$09
OD05- FC 08	2000 QCMP	.SI DOCOL
OD07- A3 OA	2001	.SI STATE
OD09- 9D 08	2002	.SI AT
ODOB- 53 07	2003	.SI ZEQU
ODOD- 8F 02	2004	.SI CLIT
ODOF- 11	2005	.BY \$11
OD10- EB OC	2006	.SI QERR
OD12- D2 06	2007	.SI SEMIS
	2008	
	2009 ;	?EXEC
	2010	
OD14- 85 3F 45	2011	.BY \$85 '?EXE' \$C3
OD17- 58 45 C3		
OD1A- FD OC	2012	.SI QCMP-\$08
OD1C- FC 08	2013 QEXEC	.SI DOCOL
OD1E- A3 OA	2014	.SI STATE
OD20- 9D 08	2015	.SI AT
OD22- 8F 02	2016	.SI CLIT
OD24- 12	2017	.BY \$12
OD25- EB OC	2018	.SI QERR
OD27- D2 06	2019	.SI SEMIS
	2020	
	2021 ;	?PAIRS
	2022	
OD29- 86 3F 50	2023	.BY \$86 '?PAIR' \$D3
OD2C- 41 49 52		
OD2F- D3		
OD30- 14 OD	2024	.SI QEXEC-\$08
OD32- FC 08	2025 QPAIR	.SI DOCOL
OD34- 3A 0B	2026	.SI SUB
OD36- 8F 02	2027	.SI CLIT
OD38- 13	2028	.BY \$13
OD39- EB OC	2029	.SI QERR
OD3B- D2 06	2030	.SI SEMIS
	2031	
	2032 ;	?CSP
	2033	
OD3D- 84 3F 43	2034	.BY \$84 '?CS' \$D0
OD40- 53 D0		
OD42- 29 OD	2035	.SI QPAIR-\$09

OD44- FC 08	2036 QCSP	.SI DOCOL
OD46- 9F 06	2037	.SI SPAT
OD48- C8 0A	2038	.SI CSP
OD4A- 9D 08	2039	.SI AT
OD4C- 3A 0B	2040	.SI SUB
OD4E- 8F 02	2041	.SI CLIT
OD50- 14	2042	.BY \$14
OD51- EB 0C	2043	.SI QERR
OD53- D2 06	2044	.SI SEMIS
	2045	
	2046 ;	?LOADING
	2047	
OD55- 88 3F 4C	2048	.BY \$88 '?LOADIN' \$C7
OD58- 4F 41 44		
OD5B- 49 4E C7		
OD5E- 3D 0D	2049	.SI QCSP-\$07
OD60- FC 08	2050 QLOAD	.SI DOCOL
OD62- 63 0A	2051	.SI BLK
OD64- 9D 08	2052	.SI AT
OD66- 53 07	2053	.SI ZEQU
OD68- 8F 02	2054	.SI CLIT
OD6A- 16	2055	.BY \$16
OD6B- EB 0C	2056	.SI QERR
OD6D- D2 06	2057	.SI SEMIS
	2058	
	2059 ;	COMPILE
	2060	
OD6F- 87 43 4F	2061	.BY \$87 'COMPIL' \$C5
OD72- 4D 50 49		
OD75- 4C C5		
OD77- 55 0D	2062	.SI QLOAD-\$0B
OD79- FC 08	2063 COMP	.SI DOCOL
OD7B- 05 0D	2064	.SI QCOMP
OD7D- 12 07	2065	.SI RFROM
OD7F- 5E 08	2066	.SI DUP
OD81- EE 0A	2067	.SI TWOP
OD83- 00 07	2068	.SI TOR
OD85- 9D 08	2069	.SI AT
OD87- 19 0B	2070	.SI COMMA
OD89- D2 06	2071	.SI SEMIS
	2072	
	2073 ;	[
	2074	
OD8B- C1 DB	2075	.BY \$C1 \$DB
OD8D- 6F 0D	2076	.SI COMP-\$0A
OD8F- FC 08	2077 LBRAC	.SI DOCOL
OD91- 88 09	2078	.SI ZERO
OD93- A3 0A	2079	.SI STATE
OD95- C1 08	2080	.SI STORE
OD97- D2 06	2081	.SI SEMIS
	2082	
	2083 ;	]
	2084	
OD99- 81 DD	2085	.BY \$81 \$DD
OD9B- 8B 0D	2086	.SI LBRAC-\$04
OD9D- FC 08	2087 RBRAC	.SI DOCOL
OD9F- 8F 02	2088	.SI CLIT
ODA1- CO	2089	.BY \$CO

ODA2- A3 0A	2090	.SI STATE
ODA4- C1 08	2091	.SI STORE
ODA6- D2 06	2092	.SI SEMIS
	2093	
	2094 ;	SMUDGE
	2095	
ODA8- 86 53 4D	2096	.BY \$86 'SMUDG' \$C5
ODAB- 55 44 47		
ODAE- C5		
ODAF- 99 0D	2097	.SI RBRAC-\$04
ODB1- FC 08	2098 SMUDG	.SI DOCOL
ODB3- 84 0C	2099	.SI LATES
ODB5- 8F 02	2100	.SI CLIT
ODB7- 20	2101	.BY \$20
ODB8- 8E 08	2102	.SI TOGL
ODBA- D2 06	2103	.SI SEMIS
	2104	
	2105 ;	HEX
	2106	
ODBC- 83 48 45	2107	.BY \$83 'HE' \$D8
ODBF- D8		
ODCO- A8 0D	2108	.SI SMUDG-\$09
ODC2- FC 08	2109 HEX	.SI DOCOL
ODC4- 8F 02	2110	.SI CLIT
ODC6- 10	2111	.BY \$10
ODC7- AD 0A	2112	.SI BASE
ODC9- C1 08	2113	.SI STORE
ODCB- D2 06	2114	.SI SEMIS
	2115	
	2116 ;	DECIMAL
	2117	
ODCD- 87 44 45	2118	.BY \$87 'DECIMA' \$CC
ODDO- 43 49 4D		
ODD3- 41 CC		
ODD5- BC 0D	2119	.SI HEX-\$06
ODD7- FC 08	2120 DECIM	.SI DOCOL
ODD9- 8F 02	2121	.SI CLIT
ODDB- 0A	2122	.BY \$0A
ODDC- AD 0A	2123	.SI BASE
ODDE- C1 08	2124	.SI STORE
ODEO- D2 06	2125	.SI SEMIS
	2126	
	2127 ;	(;CODE)
	2128	
ODE2- 87 28 3B	2129	.BY \$87 '(;CODE' \$A9
ODE5- 43 4F 44		
ODE8- 45 A9		
ODEA- CD 0D	2130	.SI DECIM-\$0A
ODEC- FC 08	2131 PSCOD	.SI DOCOL
ODEE- 12 07	2132	.SI RFROM
ODFO- 84 0C	2133	.SI LATES
ODF2- C4 0C	2134	.SI PFA
ODF4- A3 0C	2135	.SI CFA
ODF6- C1 08	2136	.SI STORE
ODF8- D2 06	2137	.SI SEMIS
	2138	
	2139 ;	;CODE
	2140	

ODFA-	C5 3B 43	2141	.BY \$C5 'COD' \$C5
ODFD-	4F 44 C5		
OE00-	E2 OD	2142	.SI PSCOD-\$0A
OE02-	FC 08	2143	SCOD
OE04-	44 OD	2144	.SI DOCOL
OE06-	79 OD	2145	.SI QCSP
OE08-	EC OD	2146	.SI COMP
OE0A-	8F OD	2147	.SI PSCOD
OE0C-	AA 25	2148	.SI LBRAAC
OE0E-	D2 06	2149	.SI AINIT
		2150	.SI SEMIS
		2151 ;	DOES>
		2152	
OE10-	C5 44 4F	2153	.BY \$C5 'DOES' \$BE
OE13-	45 53 BE		
OE16-	FA OD	2154	.SI SCOD-\$08
OE18-	FC 08	2155	DOES
OE1A-	79 OD	2156	.SI DOCOL
OE1C-	EC OD	2157	.SI COMP
OE1E-	8F 02	2158	.SI PSCOD
OE20-	20	2159	.SI CLIT
OE21-	2A 0B	2160	.BY \$20
OE23-	49 02	2161	.SI CCOMM
OE25-	2B OE	2162	.SI LIT
OE27-	19 OB	2163	.SI DODOES
OE29-	D2 06	2164	.SI COMMA
		2165	.SI SEMIS
OE2B-	CA	2166	DODOES
OE2C-	CA	2167	DEX
OE2D-	18	2168	CLC
OE2E-	A9 02	2169	LDA #\$02
OE30-	65 B1	2170	ADC *W
OE32-	95 00	2171	STA *\$00,X
OE34-	98	2172	TYA
OE35-	65 B2	2173	ADC *W+1
OE37-	95 01	2174	STA *\$01,X
OE39-	38	2175	SEC
OE3A-	68	2176	PLA
OE3B-	E9 01	2177	SBC #\$01
OE3D-	85 B1	2178	STA *W
OE3F-	68	2179	PLA
OE40-	E9 00	2180	SBC #\$00
OE42-	85 B2	2181	STA *W+1
OE44-	4C FC 08	2182	JMP DOCOL
		2183	
		2184 ;	COUNT
		2185	
OE47-	85 43 4F	2186	.BY \$85 'COUN' \$D4
OE4A-	55 4E D4		
OE4D-	10 OE	2187	.SI DOES-\$08
OE4F-	FC 08	2188	COUNT
OE51-	5E 08	2189	.SI DOCOL
OE53-	E1 OA	2190	.SI DUP
OE55-	46 08	2191	.SI ONEP
OE57-	B2 08	2192	.SI SWAP
OE59-	D2 06	2193	.SI CAT
		2194	.SI SEMIS
		2195 ;	TYPE

OE5B-	84 54 59	2196	.BY \$84 'TYP' \$C5
OE5E-	50 C5	2197	
OE60-	47 0E	2198	.SI COUNT-\$08
OE62-	FC 08	2199	TYPE
OE64-	49 OC	2200	.SI DOCOL
OE66-	9B 03	2201	.SI DDUP
OE68-	18 00	2202	.SI ZBRAN
OE6A-	2C 08	2203	.SE TYPE2--
OE6C-	90 07	2204	.SI OVER
OE6E-	46 08	2205	.SI PLUS
OE70-	23 04	2206	.SI SWAP
OE72-	3C 04	2207	TYPE1
OE74-	B2 08	2208	.SI PDO
OE76-	8E 05	2209	.SI I
OE78-	BC 03	2210	.SI CAT
OE7A-	F8 FF	2211	.SI EMIT
OE7C-	7C 03	2212	.SI PLOOP
OE7E-	04 00	2213	.SE TYPE1--
OE80-	3D 08	2214	.SI BRAN
OE82-	D2 06	2215	TYPE2
		2216	.SI DROP
		2217 ;	TYPE3
		2218	.SI SEMIS
		2219	-TRAILING
OE84-	89 2D 54	2219	.BY \$89 '-TRAILIN' \$C7
OE87-	52 41 49		
OE8A-	4C 49 4E		
OE8D-	C7		
OE8E-	5B 0E	2220	.SI TYPE-\$07
OE90-	FC 08	2221	DTRAI
OE92-	5E 08	2222	.SI DUP
OE94-	88 09	2223	.SI ZERO
OE96-	23 04	2224	.SI PDO
OE98-	2C 08	2225	DTRAI1
OE9A-	2C 08	2226	.SI OVER
OE9C-	90 07	2227	.SI PLUS
OE9E-	54 0B	2228	.SI ONESB
OEAO-	B2 08	2229	.SI CAT
OEAA-	A9 09	2230	.SI BL
OEAB-	18 OC	2231	.SI GREAT
OEAC-	9B 03	2232	.SI ZBRAN
OEAE-	08 00	2233	.SE DTRAI2--
OEAA-	E5 06	2234	.SI LEAVE
OEAC-	7C 03	2235	.SI BRAN
OEAE-	04 00	2236	.SE DTRAI3--
OEBO-	54 0B	2237	DTRAI2
OEB2-	BC 03	2238	.SI ONESB
OEB4-	E4 FF	2239	.SI PLOOP
OEB6-	D2 06	2240	.SE DTRAI1--
		2241	.SI SEMIS
		2242	.CT FTH25
		2243 ;	
		2244 ;*****	
		2245 ;**	SK-FORTH (79-STANDARD)
		2246 ;**	HDE MINI/SYKES DISK VERSION

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2251 ;** P. O. BOX 397 **
2252 ;** NEW WESTMINSTER, B. C. **
2253 ;** V3L 4Y7, CANADA **
2254 ;*****
2255 ;
2256
2257 ;*****
2258 ;** SYM/KIM FORTH PART 4 **
2259 ;** DISK FILE FTH25 **
2260 ;*****
2261
2262 ; (.)
2263
OEB8- 84 28 2E 2264 .BY $84 '(.)' $A9
OEBB- 22 A9
OEBD- 84 0E 2265 .SI DTRAI-$0C
OEBF- FC 08 2266 PDOTQ .SI DOCOL
OEC1- 24 07 2267 .SI R
OEC3- 4F 0E 2268 .SI COUNT
OEC5- 5E 08 2269 .SI DUP
OEC7- E1 0A 2270 .SI ONEP
OEC9- 12 07 2271 .SI RFROM
OECB- 90 07 2272 .SI PLUS
OECD- 00 07 2273 .SI TOR
OECF- 62 0E 2274 .SI TYPE
OED1- D2 06 2275 .SI SEMIS
2276
2277 ; .
2278
OED3- C2 2E A2 2279 .BY $C2 '.' $A2
OED6- B8 0E 2280 .SI PDOTQ-$07
OED8- FC 08 2281 DOTQ .SI DOCOL
OEDA- 8F 02 2282 .SI CLIT
OEDC- 22 2283 .BY $22
OEDD- A3 0A 2284 .SI STATE
OEDF- 9D 08 2285 .SI AT
OEE1- 9B 03 2286 .SI ZBRAN
OEE3- 12 00 2287 .SE DOTQ1=-
OEE5- 79 0D 2288 .SI COMP
OEE7- BF 0E 2289 .SI PDOTQ
OEE9- F9 OF 2290 .SI WORD
OEEB- B2 08 2291 .SI CAT
OEED- E1 0A 2292 .SI ONEP
OEEF- OD 0B 2293 .SI ALLOT
OEF1- 7C 03 2294 .SI BRAN
OEF3- 08 00 2295 .SE DOTQ2=-
OEF5- F9 OF 2296 DOTQ1 .SI WORD
OEF7- 4F 0E 2297 .SI COUNT
OEF9- 62 0E 2298 .SI TYPE
OEFB- D2 06 2299 DOTQ2 .SI SEMIS
2300
2301 ; BEEP
2302
Oefd- 84 42 45 2303 .BY $84 'BEE' $D0

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OF00- 45 DO
OF02- D3 0E 2304 .SI DOTQ-$05
OF04- 06 OF 2305 BEP .SI +=2
OF06- 20 1E 02 2306 JSR BELL.VEC
OF09- 4C 63 02 2307 JMP NEXT
2308
2309 ; TRACEOFF
2310
OF0C- 88 54 52 2311 .BY $88 'TRACEOF' $C6
OF0F- 41 43 45
OF12- 4F 46 C6
OF15- FD OE 2312 .SI BEP-$07
OF17- 19 OF 2313 TRAOFF .SI +=2
OF19- 20 1F OF 2314 JSR TROFF
OF1C- 4C 63 02 2315 JMP NEXT
2316
OF1F- A9 60 2317 TROFF LDA #$60
OF21- 8D 97 02 2318 STA TRACE
OF24- 8D F8 02 2319 STA TCOLON
OF27- 60 2320 RTS
2321
2322 ; TRACEON
2323
OF28- 87 54 52 2324 .BY $87 'TRACEO' $C6
OF2B- 41 43 45
OF2E- 4F CE
OF30- OC OF 2325 .SI TRAOFF-$08
OF32- 34 OF 2326 TRAON .SI +=2
OF34- 20 3A OF 2327 JSR TRON
OF37- 4C 63 02 2328 JMP NEXT
2329
OF3A- A9 86 2330 TRON LDA #$86
OF3C- 8D 97 02 2331 STA TRACE
OF3F- 8D F8 02 2332 STA TCOLON
OF42- 60 2333 RTS
2334
2335 ; TRACECOLON
2336
OF43- 8A 54 52 2337 .BY $8A 'TRACECOLO' $C6
OF46- 41 43 45
OF49- 43 4F 4C
OF4C- 4F CE
OF4E- 28 OF 2338 .SI TRAON-$0A
OF50- 52 OF 2339 TRACOL .SI +=2
OF52- 20 58 OF 2340 JSR TCOL
OF55- 4C 63 02 2341 JMP NEXT
2342
OF58- A9 86 2343 TRCOL LDA #$86
OF5A- 8D F8 02 2344 STA TCOLON
OF5D- 60 2345 RTS
2346
2347 ; QUERY
2348
OF5E- 85 51 55 2349 .BY $85 'QUER' $D9
OF61- 45 52 D9
OF64- 43 OF 2350 .SI TRACOL-$0D
OF66- FC 08 2351 QUERY .SI DOCOL
OF68- 21 OA 2352 .SI TIB

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OF6A- 9D 08	2353	.SI AT
OF6C- B2 09	2354	.SI TW
OF6E- 84 21	2355	.SI EXPECT
OF70- 88 09	2356	.SI ZERO
OF72- 6C 0A	2357	.SI IN
OF74- C1 08	2358	.SI STORE
OF76- D2 06	2359	.SI SEMIS
	2360	
	2361 ;	FILL
	2362	
OF78- 84 46 49	2363	.BY \$84 'FIL' \$CC
OF7B- 4C CC		
OF7D- 5E 0F	2364	.SI QUERY-\$08
OF7F- FC 08	2365 FILL	.SI DOCOL
OF81- 2C 08	2366	.SI OVER
OF83- 7A 07	2367	.SI ZGREAT
OF85- 9B 03	2368	.SI ZBRAN
OF87- 18 00	2369	.SE FILL1--
OF89- 46 08	2370	.SI SWAP
OF8B- 00 07	2371	.SI TOR
OF8D- 2C 08	2372	.SI OVER
OF8F- D9 08	2373	.SI CSTOR
OF91- 5E 08	2374	.SI DUP
OF93- E1 0A	2375	.SI ONEP
OF95- 12 07	2376	.SI RFROM
OF97- 54 0B	2377	.SI ONESB
OF99- B5 05	2378	.SI CMOVE
OF9B- 7C 03	2379	.SI BRAN
OF9D- 08 00	2380	.SE FILL2--
OF9F- 3D 08	2381 FILL1	.SI DROP
OFA1- 3D 08	2382	.SI DROP
OFA3- 3D 08	2383	.SI DROPAU
OFA5- D2 06	2384 FILL2	.SI SEMIS
	2385	
	2386 ;	ERASE
	2387	
OFA7- 85 45 52	2388	.BY \$85 'ERAS' \$C5
OFAA- 41 53 C5		
OFAD- 78 0F	2389	.SI FILL-\$07
OFAF- FC 08	2390 ERASE	.SI DOCOL
OFB1- 88 09	2391	.SI ZERO
OFB3- 7F 0F	2392	.SI FILL
OFB5- D2 06	2393	.SI SEMIS
	2394	
	2395 ;	BLANKS
	2396	
OFB7- 86 42 4C	2397	.BY \$86 'BLANK' \$D3
OFBA- 41 4E 4B		
OFBD- D3		
OFBE- A7 0F	2398	.SI ERASE-\$08
OFC0- FC 08	2399 BLANK	.SI DOCOL
OFC2- A9 09	2400	.SI BL
OFC4- 7F 0F	2401	.SI FILL
OFC6- D2 06	2402	.SI SEMIS
	2403	
	2404 ;	HOLD
	2405	
OFC8- 84 48 4F	2406	.BY \$84 'HOL' \$C4

OFCB- 4C C4		
OFCD- B7 OF	2407	.SI BLANK-\$09
OFCF- FC 08	2408 HOLD	.SI DOCOL
OFD1- 49 02	2409	.SI LIT
OFD3- FF FF	2410	.SE \$FFFF
OFD5- D9 0A	2411	.SI HLD
OFD7- 6D 08	2412	.SI PSTOR
OFD9- D9 0A	2413	.SI HLD
OFDB- 9D 08	2414	.SI AT
OFDD- D9 08	2415	.SI CSTOR
OFDF- D2 06	2416	.SI SEMIS
	2417	
	2418 ;	PAD
	2419	
OFE1- 83 50 41	2420	.BY \$83 'PA' \$C4
OFE4- C4		
OFE5- C8 OF	2421	.SI HOLD-\$07
OFE7- FC 08	2422 PAD	.SI DOCOL
OFE9- FD 0A	2423	.SI HERE
OFEF- 8F 02	2424	.SI CLIT
OFED- 54	2425	.BY \$54
OFEE- 90 07	2426	.SI PLUS
OFF0- D2 06	2427	.SI SEMIS
	2428	
	2429 ;	WORD
	2430	
OFF2- 84 57 4F	2431	.BY \$84 'WOR' \$C4
OFF5- 52 C4		
OFF7- E1 OF	2432	.SI PAD-\$06
OFF9- FC 08	2433 WORD	.SI DOCOL
OFFB- 63 0A	2434	.SI BLK
OFFD- 9D 08	2435	.SI AT
OFFF- 9B 03	2436	.SI ZBRAN
1001- OC 00	2437	.SE WORD1--
1003- 63 0A	2438	.SI BLK
1005- 9D 08	2439	.SI AT
1007- 67 17	2440	.SI BLOCK
1009- 7C 03	2441	.SI BRAN
100B- 06 00	2442	.SE WORD2--
100D- 21 0A	2443 WORD1	.SI TIB
100F- 9D 08	2444	.SI AT
1011- 6C 0A	2445 WORD2	.SI IN
1013- 9D 08	2446	.SI AT
1015- 90 07	2447	.SI PLUS
1017- 46 08	2448	.SI SWAP
1019- 33 05	2449	.SI ENCL
101B- FD 0A	2450	.SI HERE
101D- 8F 02	2451	.SI CLIT
101F- 22	2452	.BY \$22
1020- CO OF	2453	.SI BLANK
1022- 6C 0A	2454	.SI IN
1024- 6D 08	2455	.SI PSTOR
1026- 2C 08	2456	.SI OVER
1028- 3A 0B	2457	.SI SUB
102A- 00 07	2458	.SI TOR
102C- 24 07	2459	.SI R
102E- FD 0A	2460	.SI HERE
1030- D9 08	2461	.SI CSTOR

1032- 90 07	2462	.SI PLUS
1034- FD 0A	2463	.SI HERE
1036- E1 0A	2464	.SI ONEP
1038- 12 07	2465	.SI RFROM
103A- B5 05	2466	.SI CMOVE
103C- FD 0A	2467	.SI HERE
103E- D2 06	2468	.SI SEMIS
	2469	
	2470 ;	(NUMBER)
	2471	
1040- 88 28 4E	2472	.BY \$88 '(NUMBER' \$A9
1043- 55 4D 42		
1046- 45 52 A9		
1049- F2 0F	2473	.SI WORD-\$07
104B- FC 08	2474 PNUMB	.SI DOCOL
104D- E1 0A	2475 PNUM1	.SI ONEP
104F- 5E 08	2476	.SI DUP
1051- 00 07	2477	.SI TOR
1053- B2 08	2478	.SI CAT
1055- AD 0A	2479	.SI BASE
1057- 9D 08	2480	.SI AT
1059- 70 04	2481	.SI DIGIT
105B- 9B 03	2482	.SI ZBRAN
105D- 2C 00	2483	.SE PNUM3=-
105F- 46 08	2484	.SI SWAP
1061- AD 0A	2485	.SI BASE
1063- 9D 08	2486	.SI AT
1065- E4 05	2487	.SI USTAR
1067- 3D 08	2488	.SI DROP
1069- 26 0C	2489	.SI ROT
106B- AD 0A	2490	.SI BASE
106D- 9D 08	2491	.SI AT
106F- E4 05	2492	.SI USTAR
1071- D4 07	2493	.SI DPLUS
1073- B6 0A	2494	.SI DPL
1075- 9D 08	2495	.SI AT
1077- E1 0A	2496	.SI ONEP
1079- 9B 03	2497	.SI ZBRAN
107B- 08 00	2498	.SE PNUM2=-
107D- 90 09	2499	.SI ONE
107F- B6 0A	2500	.SI DPL
1081- 6D 08	2501	.SI PSTOR
1083- 12 07	2502 PNUM2	.SI RFROM
1085- 7C 03	2503	.SI BRAN
1087- C6 FF	2504	.SE PNUM1=-
1089- 12 07	2505 PNUM3	.SI RFROM
108B- D2 06	2506	.SI SEMIS
	2507	
	2508 ;	NUMBER
	2509	
108D- 86 4E 55	2510	.BY \$86 'NUMBE' \$D2
1090- 4D 42 45		
1093- D2		
1094- 40 10	2511	.SI PNUMB-\$0B
1096- FC 08	2512 NUMBER	.SI DOCOL
1098- 88 09	2513	.SI ZERO
109A- 88 09	2514	.SI ZERO
109C- 26 0C	2515	.SI ROT

109E- 5E 08	2516	.SI DUP
10A0- E1 0A	2517	.SI ONEP
10A2- B2 08	2518	.SI CAT
10A4- 8F 02	2519	.SI CLIT
10A6- 2D	2520	.BY \$2D
10A7- 8B 0B	2521	.SI EQUAL
10A9- 5E 08	2522	.SI DUP
10AB- 00 07	2523	.SI TOR
10AD- 90 07	2524	.SI PLUS
10AF- 49 02	2525	.SI LIT
10B1- FF FF	2526	.SE \$FFFF
10B3- B6 0A	2527 NUM1	.SI DPL
10B5- C1 08	2528	.SI STORE
10B7- 4B 10	2529	.SI PNUMB
10B9- 5E 08	2530	.SI DUP
10BB- B2 08	2531	.SI CAT
10BD- A9 09	2532	.SI BL
10BF- 3A 0B	2533	.SI SUB
10C1- 9B 03	2534	.SI ZBRAN
10C3- 15 00	2535	.SE NUM2=-
10C5- 5E 08	2536	.SI DUP
10C7- B2 08	2537	.SI CAT
10C9- 8F 02	2538	.SI CLIT
10CB- 2E	2539	.BY \$2E
10CC- 3A 0B	2540	.SI SUB
10CE- 88 09	2541	.SI ZERO
10D0- EB OC	2542	.SI QERR
10D2- 88 09	2543	.SI ZERO
10D4- 7C 03	2544	.SI BRAN
10D6- DD FF	2545	.SE NUM1=-
10D8- 3D 08	2546 NUM2	.SI DROP
10DA- 12 07	2547	.SI RFROM
10DC- 9B 03	2548	.SI ZBRAN
10DE- 04 00	2549	.SE NUM3=-
10E0- 15 08	2550	.SI DNNEGATE
10E2- D2 06	2551 NUM3	.SI SEMIS
	2552	
	2553 ;	-FIND
	2554	
10E4- 85 2D 46	2555	.BY \$85 '-FIN' \$C4
10E7- 49 4E C4		
10EA- 8D 10	2556	.SI NUMBER-\$09
10EC- FC 08	2557 DFIND	.SI DOCOL
10EE- A9 09	2558	.SI BL
10FO- F9 OF	2559	.SI WORD
10F2- 8B 0A	2560	.SI CON
10F4- 9D 08	2561	.SI AT
10F6- 9D 08	2562	.SI AT
10F8- CD 04	2563	.SI PFIND
10FA- 5E 08	2564	.SI DUP
10FC- 53 07	2565	.SI ZEQU
10FE- 9B 03	2566	.SI ZBRAN
1100- 0A 00	2567	.SE DFIND1=-
1102- 3D 08	2568	.SI DROP
1104- FD 0A	2569	.SI HERE
1106- 84 0C	2570	.SI LATES
1108- CD 04	2571	.SI PFIND
110A- D2 06	2572 DFIND1	.SI SEMIS

	2573		
	2574 ;	(ABORT)	
	2575		
110C-	87 28 41	2576	.BY \$87 '(ABORT' \$A9
110F-	42 4F 52		
1112-	54 A9		
1114-	E4 10	2577	.SI DFIND-\$08
1116-	FC 08	2578 PABOR	.SI DOCOL
1118-	A5 13	2579	.SI ABORT
111A-	D2 06	2580	.SI SEMIS
	2581		
	2582 ;	ERROR	
	2583		
111C-	85 45 52	2584	.BY \$85 'ERRO' \$D2
111F-	52 4F D2		
1122-	0C 11	2585	.SI PABOR-\$0A
1124-	FC 08	2586 ERROR	.SI DOCOL
1126-	39 OA	2587	.SI WARN
1128-	9D 08	2588	.SI AT
112A-	68 07	2589	.SI ZLESS
112C-	9B 03	2590	.SI ZBRAN
112E-	04 00	2591	.SE ERROR1==
1130-	16 11	2592	.SI PABOR
1132-	FD 0A	2593 ERROR1	.SI HERE
1134-	4F 0E	2594	.SI COUNT
1136-	62 0E	2595	.SI TYPE
1138-	BF 0E	2596	.SI PDTQ
113A-	04 20 20	2597	.BY \$04 ?
113D-	3F 20		
113F-	1D 18	2598	.SI MESS
1141-	AE 06	2599	.SI SPSTO
1143-	3D 08	2600	.SI DROP
1145-	3D 08	2601	.SI DROP
1147-	6C 0A	2602	.SI IN
1149-	9D 08	2603	.SI AT
114B-	63 OA	2604	.SI BLK
114D-	9D 08	2605	.SI AT
114F-	76 13	2606	.SI QUIT
1151-	D2 06	2607	.SI SEMIS
	2608		
	2609 ;	ID.	
	2610		
1153-	83 49 44	2611	.BY \$83 'ID' \$AE
1156-	AE		
1157-	1C 11	2612	.SI ERROR-\$08
1159-	FC 08	2613 IDDOT	.SI DOCOL
115B-	E7 OF	2614	.SI PAD
115D-	8F 02	2615	.SI CLIT
115F-	20	2616	.BY \$20
1160-	8F 02	2617	.SI CLIT
1162-	5F	2618	.BY \$5F
1163-	7F OF	2619	.SI FILL
1165-	5E 08	2620	.SI DUP
1167-	C4 OC	2621	.SI PFA
1169-	94 OC	2622	.SI LFA
116B-	2C 08	2623	.SI OVER
116D-	3A 0B	2624	.SI SUB
116F-	E7 OF	2625	.SI PAD

	1171- 46 08	2626	.SI SWAP
	1173- B5 05	2627	.SI CMOVE
	1175- E7 OF	2628	.SI PAD
	1177- 4F 0E	2629	.SI COUNT
	1179- 8F 02	2630	.SI CLIT
	117B- 1F	2631	.BY \$1F
	117C- 5E 06	2632	.SI ANDD
	117E- 62 0E	2633	.SI TYPE
	1180- 3A 0C	2634	.SI SPACE
	1182- D2 06	2635	.SI SEMIS
		2636	
		2637 ;	CREATE
		2638	
	1184- 86 43 52	2639	.BY \$86 'CREAT' \$C5
	1187- 45 41 54		
	118A- C5		
	118B- 53 11	2640	.SI IDDOT-\$06
	118D- FC 08	2641 CREAT	.SI DOCOL
	118F- C8 09	2642	.SI FIRST
	1191- FD 0A	2643	.SI HERE
	1193- 8F 02	2644	.SI CLIT
	1195- A0	2645	.BY \$AO
	1196- 90 07	2646	.SI PLUS
	1198- B1 0B	2647	.SI ULESS
	119A- 98 09	2648	.SI TWO
	119C- EB 0C	2649	.SI QERR
	119E- EC 10	2650	.SI DFIND
	11A0- 9B 03	2651	.SI ZBRAN
	11A2- OF 00	2652	.SE CREAT1==
	11A4- 3D 08	2653	.SI DROP
	11A6- AF 0C	2654	.SI NFA
	11A8- 59 11	2655	.SI IDDOT
	11AA- 8F 02	2656	.SI CLIT
	11AC- 04	2657	.BY \$04
	11AD- 1D 18	2658	.SI MESS
	11AF- 3A 0C	2659	.SI SPACE
	11B1- FD 0A	2660 CREAT1	.SI HERE
	11B3- 5E 08	2661	.SI DUP
	11B5- B2 08	2662	.SI CAT
	11B7- 2C 0A	2663	.SI WIDTH
	11B9- 9D 08	2664	.SI AT
	11BB- B0 15	2665	.SI MIN
	11BD- E1 0A	2666	.SI ONEP
	11BF- OD 0B	2667	.SI ALLOT
	11C1- 5E 08	2668	.SI DUP
	11C3- 8F 02	2669	.SI CLIT
	11C5- 80	2670	.BY \$80
	11C6- 8E 08	2671	.SI TOGGL
	11C8- FD 0A	2672	.SI HERE
	11CA- 90 09	2673	.SI ONE
	11CC- 3A 0B	2674	.SI SUB
	11CE- 8F 02	2675	.SI CLIT
	11D0- 80	2676	.BY \$80
	11D1- 8E 08	2677	.SI TOGGL
	11D3- 84 0C	2678	.SI LATES
	11D5- 19 0B	2679	.SI COMMA
	11D7- 98 0A	2680	.SI CURR
	11D9- 9D 08	2681	.SI AT

11DB- C1 08	2682	.SI STORE
11DD- 98 09	2683	.SI TWO
11DF- OD 0B	2684	.SI ALLOT
11E1- EC 0D	2685	.SI PSCOD
11E3- 18	2686	DOCREAT CLC
11E4- A5 B1	2687	LDA *W
11E6- 69 02	2688	ADC #\$02
11E8- 48	2689	PHA
11E9- 98	2690	TYA
11EA- 65 B2	2691	ADC *W+1
11EC- 4C 5C 02	2692	JMP PUSH
	2693	
	2694 ;	[COMPILE]
	2695	
11EF- C9 5B 43	2696	.BY \$C9 '[COMPILE]' \$DD
11F2- 4F 4D 50		
11F5- 49 4C 45		
11F8- DD		
11F9- 84 11	2697	.SI CREAT-\$09
11FB- FC 08	2698	BCOMP .SI DOCOL
11FD- EC 10	2699	.SI DFIND
11FF- 53 07	2700	.SI ZEQU
1201- 88 09	2701	.SI ZERO
1203- EB OC	2702	.SI QERR
1205- 3D 08	2703	.SI DROP
1207- A3 OC	2704	.SI CFA
1209- 19 OB	2705	.SI COMMA
120B- D2 06	2706	.SI SEMIS
	2707	
	2708 ;	LITERAL
	2709	
120D- C7 4C 49	2710	.BY \$C7 'LITERA' \$CC
1210- 54 45 52		
1213- 41 CC		
1215- EF 11	2711	.SI BCOMP-\$0C
1217- FC 08	2712	LITER .SI DOCOL
1219- A3 OA	2713	.SI STATE
121B- 9D 08	2714	.SI AT
121D- 9B 03	2715	.SI ZBRAN
121F- 08 00	2716	.SE LITER1--
1221- 79 0D	2717	.SI COMP
1223- 49 02	2718	.SI LIT
1225- 19 OB	2719	.SI COMMA
1227- D2 06	2720	LITER1 .SI SEMIS
	2721	
	2722 ;	CLITERAL
	2723	
1229- C8 43 4C	2724	.BY \$C8 'CLITERA' \$CC
122C- 49 54 45		
122F- 52 41 CC		
1232- OD 12	2725	.SI LITER-\$0A
1234- FC 08	2726	CLITER .SI DOCOL
1236- A3 OA	2727	.SI STATE
1238- 9D 08	2728	.SI AT
123A- 9B 03	2729	.SI ZBRAN
123C- 08 00	2730	.SE CLITER1--
123E- 79 0D	2731	.SI COMP
1240- 8F 02	2732	.SI CLIT

1242- 2A 0B	2733	.SI CCOMM
1244- D2 06	2734	CLITER1 .SI SEMIS
	2735	
	2736	
	2737 ;	DLITERAL
	2738	
1246- C8 44 4C	2739	.BY \$C8 'DLITERA' \$CC
1249- 49 54 45		
124C- 52 41 CC		
124F- 29 12	2740	.SI CLITER-\$0B
1251- FC 08	2741	DLIT .SI DOCOL
1253- A3 OA	2742	.SI STATE
1255- 9D 08	2743	.SI AT
1257- 9B 03	2744	.SI ZBRAN
1259- 08 00	2745	.SE DLIT1--
125B- 46 08	2746	.SI SWAP
125D- 17 12	2747	.SI LITER
125F- 17 12	2748	.SI LITER
1261- D2 06	2749	DLIT1 .SI SEMIS
	2750	
	2751 ;	?STACK
	2752	
1263- 86 3F 53	2753	.BY \$86 '?STAC' \$CB
1266- 54 41 43		
1269- CB		
126A- 46 12	2754	.SI DLIT-\$0B
126C- FC 08	2755	QSTAC .SI DOCOL
126E- 8F 02	2756	.SI CLIT
1270- 9E	2757	.BY TOS
1271- 9F 06	2758	.SI SPAT
1273- B1 OB	2759	.SI ULESS
1275- 90 09	2760	.SI ONE
1277- EB OC	2761	.SI QERR
1279- 9F 06	2762	.SI SPAT
127B- 8F 02	2763	.SI CLIT
127D- 20	2764	.BY BOS
127E- B1 OB	2765	.SI ULESS
1280- 8F 02	2766	.SI CLIT
1282- 07	2767	.BY \$07
1283- EB OC	2768	.SI QERR
1285- D2 06	2769	.SI SEMIS
	2770	
	2771 ;	INTERPRET
	2772	
1287- 89 49 4E	2773	.BY \$89 'INTERPRE' \$D4
128A- 54 45 52		
128D- 50 52 45		
1290- D4		
1291- 63 12	2774	.SI QSTAC-\$09
1293- FC 08	2775	INTER .SI DOCOL
1295- EC 10	2776	INT1 .SI DFIND
1297- 9B 03	2777	.SI ZBRAN
1299- 1E 00	2778	.SE INT4--
129B- A3 OA	2779	.SI STATE
129D- 9D 08	2780	.SI AT
129F- C2 OB	2781	.SI LESS
12A1- 9B 03	2782	.SI ZBRAN
12A3- OA 00	2783	.SE INT2--

12A5- A3 OC 2784 .SI CFA  
 12A7- 19 OB 2785 .SI COMMA  
 12A9- 7C 03 2786 .SI BRAN  
 12AB- 06 00 2787 .SE INT3--  
 12AD- A3 OC 2788 INT2 .SI CFA  
 12AF- 59 03 2789 .SI EXEC  
 12B1- 6C 12 2790 INT3 .SI QSTAC  
 12B3- 7C 03 2791 .SI BRAN  
 12B5- 2E 00 2792 .SE INT7--  
 12B7- FD OA 2793 INT4 .SI HERE  
 12B9- 96 10 2794 .SI NUMBER  
 12BB- B6 OA 2795 .SI DPL  
 12BD- 9D 08 2796 .SI AT  
 12BF- E1 OA 2797 .SI ONEP  
 12C1- 9B 03 2798 .SI ZBRAN  
 12C3- 08 00 2799 .SE INT5--  
 12C5- 51 12 2800 .SI DLIT  
 12C7- 7C 03 2801 .SI BRAN  
 12C9- 18 00 2802 .SE INT6--  
 12CB- 3D 08 2803 INT5 .SI DROP  
 12CD- 5E 08 2804 .SI DUP  
 12CF- 49 02 2805 .SI LIT  
 12D1- 00 FF 2806 .SE \$FFOO  
 12D3- 5E 06 2807 .SI ANDD  
 12D5- 9B 03 2808 .SI ZBRAN  
 12D7- 08 00 2809 .SE INT55--  
 12D9- 17 12 2810 .SI LITER  
 12DB- 7C 03 2811 .SI BRAN  
 12DD- 04 00 2812 .SE INT6--  
 12DF- 34 12 2813 INT55 .SI CLITER  
 12E1- 6C 12 2814 INT6 .SI QSTAC  
 12E3- 7C 03 2815 INT7 .SI BRAN  
 12E5- BO FF 2816 .SE INT1--  
 2817  
 2818 ; IMMEDIATE  
 2819  
 12E7- 89 49 4D 2820 .BY \$89 'IMMEDIAT' \$C5  
 12EA- 4D 45 44  
 12ED- 49 41 54  
 12FO- C5  
 12F1- 87 12 2821 .SI INTER-\$OC  
 12F3- FC 08 2822 IMMED .SI DOCOL  
 12F5- 84 0C 2823 .SI LATES  
 12F7- 8F 02 2824 .SI CLIT  
 12F9- 40 2825 .BY \$40  
 12FA- 8E 08 2826 .SI TOGGL  
 12FC- D2 06 2827 .SI SEMIS  
 2828  
 2829 ;  
 2830  
 12FE- 8A 56 4F 2831 .BY \$8A 'VOCABULAR' \$D9  
 1301- 43 41 42  
 1304- 55 4C 41  
 1307- 52 D9  
 1309- E7 12 2832 .SI IMMED-\$OC  
 130B- FC 08 2833 VOCAB .SI DOCOL  
 130D- 8D 11 2834 .SI CREAT  
 130F- 49 02 2835 .SI LIT

1311- 81 AO 2836 .SE \$A081 ;USED TO LINK VOCABULARIES  
 1313- 19 OB 2837 .SI COMMA  
 1315- 98 OA 2838 .SI CURR  
 1317- 9D 08 2839 .SI AT  
 1319- A3 OC 2840 .SI CFA  
 131B- 19 OB 2841 .SI COMMA  
 131D- FD OA 2842 .SI HERE  
 131F- 5A OA 2843 .SI VOCL  
 1321- 9D 08 2844 .SI AT  
 1323- 19 OB 2845 .SI COMMA  
 1325- 5A OA 2846 .SI VOCL  
 1327- C1 08 2847 .SI STORE  
 1329- EC 0D 2848 .SI PSCOD  
 132B- 20 2B OE 2849 DOVOC JSR DODOES  
 132E- EE OA 2850 .SI TWOP  
 1330- 8B OA 2851 .SI CON  
 1332- C1 08 2852 .SI STORE  
 1334- D2 06 2853 .SI SEMIS  
 2854  
 2855 ; FORTH  
 2856  
 1336- C5 46 4F 2857 .BY \$C5 'FORT' \$C8  
 1339- 52 54 C8  
 133C- FE 12 2858 .SI VOCAB-\$OD  
 133E- 2B 13 2859 FORTH .SI DOVOC  
 1340- 81 AO 2860 .SE \$A081  
 1342- B8 25 2861 XFOR .SI NTOP  
 1344- 00 00 2862 VLO .SE \$0000  
 2863  
 2864 ; DEFINITIONS  
 2865  
 1346- 8B 44 45 2866 .BY \$8B 'DEFINITION' \$D3  
 1349- 46 49 4E  
 134C- 49 54 49  
 134F- 4F 4E D3  
 1352- 36 13 2867 .SI FORTH-\$08  
 1354- FC 08 2868 DEF IN .SI DOCOL  
 1356- 8B OA 2869 .SI CON  
 1358- 9D 08 2870 .SI AT  
 135A- 98 OA 2871 .SI CURR  
 135C- C1 08 2872 .SI STORE  
 135E- D2 06 2873 .SI SEMIS  
 2874  
 2875 ;  
 2876  
 1360- C1 A8 2877 .BY \$C1 \$A8  
 1362- 46 13 2878 .SI DEFIN-\$OE  
 1364- FC 08 2879 CLBRAC .SI DOCOL  
 1366- 8F 02 2880 .SI CLIT  
 1368- 29 2881 .BY \$29  
 1369- F9 OF 2882 .SI WORD  
 136B- 3D 08 2883 .SI DROP  
 136D- D2 06 2884 .SI SEMIS  
 2885  
 2886 ; QUIT  
 2887  
 136F- 84 51 55 2888 .BY \$84 'QUI' \$D4  
 1372- 49 D4

1374-	60	13	2889	.SI CLBRAC-\$04	
1376-	FC	08	2890	QUIT	
1378-	88	09	2891	.SI ZERO	
137A-	63	0A	2892	.SI BLK	
137C-	C1	08	2893	.SI STORE	
137E-	8F	0D	2894	.SI LBRAC	
1380-	BE	06	2895	QUIT1	
1382-	AB	05	2896	.SI CR	
1384-	66	0F	2897	.SI QUERY	
1386-	93	12	2898	.SI INTER	
1388-	A3	0A	2899	.SI STATE	
138A-	9D	08	2900	.SI AT	
138C-	53	07	2901	.SI ZEQU	
138E-	9B	03	2902	.SI ZBRAN	
1390-	07	00	2903	.SE QUIT2=-	
1392-	BF	0E	2904	.SI PDOTQ	
1394-	02	4F	2905	.BY \$02 'OK'	
1397-	7C	03	2906	QUIT2	
1399-	E7	FF	2907	.SE QUIT1=-	
139B-	D2	06	2908	.SI SEMIS	
			2909		
			2910 ;	ABORT	
			2911		
139D-	85	41	42	2912	.BY \$85 'ABOR' \$D4
13A0-	4F	52	D4		
13A3-	6F	13	2913	.SI QUIT-\$07	
13A5-	FC	08	2914	ABORT	
13A7-	AE	06	2915	.SI DOCOL	
13A9-	D7	0D	2916	.SI SPSTO	
13AB-	C9	1A	2917	.SI DECIM	
13AD-	47	1A	2918	.SI OFF	
13AF-	AB	05	2919	.SI SET2	
13B1-	BF	0E	2920	.SI CR	
13B3-	1F	53	4B	2921	.SI PDOTQ
				.BY \$1F 'SK-FORTH 2.0 BY JOHN W. BROWN'	
13B6-	2D	46	4F		
13B9-	52	54	48		
13BC-	20	32	2E		
13BF-	30	20	20		
13C2-	42	59	20		
13C5-	20	4A	4F		
13C8-	48	4E	20		
13CB-	57	2E	20		
13CE-	42	52	4F		
13D1-	57	4E			
13D3-	AB	05	2922	.SI CR	
13D5-	AB	05	2923	.SI CR	
13D7-	BF	0E	2924	.SI PDOTQ	
13D9-	2B	43	4F	2925	.BY \$2B 'COPYRIGHT (C) 1981 '
13DC-	50	59	52		
13DF-	49	47	48		
13E2-	54	20	28		
13E5-	43	29	20		
13E8-	31	39	38		
13EB-	31	20			
13ED-	20	53	41	2926	.BY ' SATURN SOFTWARE LIMITED'
13FO-	54	55	52		
13F3-	4E	20	53		
13F6-	4F	46	54		

13F9-	57	41	52		
13FC-	45	20	4C		
13FF-	49	4D	49		
1402-	54	45	44		
1405-	3E	13	2927	.SI FORTH	
1407-	54	13	2928	.SI DEFIN	
1409-	AB	05	2929	.SI CR	
140B-	BF	0E	2930	.SI PDOTQ	
140D-	02	4F	4B	.BY \$02 'OK'	
1410-	76	13	2932	.SI QUIT	
			2933		
			2934 ;	CCOLD	
			2935		
1412-	85	43	43	2936 .BY \$85 'CCOL' \$C4	
1415-	4F	4C	C4		
1418-	9D	13	2937	.SI ABORT-\$08	
141A-	1C	14	2938 CCOLD	.SI +=2	
141C-	AD	2A	02	LDA FORTH.TOP FROM CS AREA	
141F-	8D	42	13	STA FORTH+\$04	
1422-	AD	2B	02	LDA FORTH.TOP+1	
1425-	8D	43	13	STA FORTH+\$05	
1428-	A0	15	2943	LDY #\$15	
142A-	DO	02	2944	BNE WARM1	
142C-	A0	0F	2945 WARM	LDY #\$0F	
142E-	AD	2E	02	2946 WARM1	LDA I.UP
1431-	85	B3	2947	STA *UP	
1433-	AD	2F	02	2948 LDA I.UP+1	
1436-	85	B4	2949	STA *UP+1	
1438-	B9	2A	02	2950 WARM2 LDA FORTH.TOP,Y	
143B-	91	B3	2951	STA (UP),Y	
143D-	88		2952	DEY	
143E-	10	F8	2953	BPL WARM2	
1440-	A9	13	2954	LDA #H,ABORT+2	
1442-	85	AF	2955	STA *IP+1	
1444-	A9	A7	2956	LDA #L,ABORT+2	
1446-	85	AE	2957	STA *IP	
1448-	D8		2958 CLD		
			2959		
			2960	IFE SYM-1	
1449-	20	86	8B	2961 JSR ACCESS	
144C-	A9	00	2962	LDA #\$00	
144E-	8D	53	A6	2963 STA TECHO	
1451-	AD	02	A0	2964 LDA VIADRB	
1454-	09	80	2965 ORA #\$80		
1456-	8D	02	A0	2966 STA VIADRB	
1459-	20	27	19	2967 JSR TOFF1	
145C-	20	75	19	2968 JSR TTYCLOSE	
145F-	A9	4A	2969	LDA #L,MONBRK	
1461-	8D	76	A6	2970 STA USRBRK	
1464-	A9	80	2971 LDA #H,MONBRK		
1466-	8D	77	A6	2972 STA USRBRK+1	
			2973 ***		
			2974		
			2975	IFE KIM-1	
			2976	JSR INIT1	
			2977	LDA PBDD	
			2978	ORA #\$0C	
			2979	STA PBDD	

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2980      JSR TOFFO
2981      JSR TOFF1
2982      LDA #L, REENTER
2983      STA USRBRK
2984      STA NMIVEC
2985      LDA #H, REENTER
2986      STA USRBRK+1
2987      STA NMIVEC+1
2988      ***
2989
1469- A2 FF 2990      LDX #$FF
146B- 9A    2991      TXS
2992
146C- A9 OC 2993      LDA #$OC      ;CLEAR SCREEN
146E- 20 09 02 2994      JSR TOUT.VEC
1471- 20 1E 02 2995      JSR BELL.VEC      ;DELAY
1474- 4C CO 06 2996      JMP RPSTO+2
2997
2998      .CT FTH30
2999 ;
3000 *****SK-FORTH (79-STANDARD)*****
3001 ;** SK-FORTH (79-STANDARD)      **
3002 ;** HDE MINI/SYKES DISK VERSION   **
3003 ;** BY JACK W. BROWN             **
3004 ;** COPYRIGHT (C) 1980           **
3005 ;** SATURN SOFTWARE LIMITED      **
3006 ;** (ALL RIGHTS RESERVED)        **
3007 ;** P. O. BOX 397                **
3008 ;** NEW WESTMINSTER, B. C.       **
3009 ;** V3L 4Y7, CANADA              **
3010 *****
3011 ;
3012
3013 *****SYM/KIM-FORTH PART 5*****
3014 ;** SYM/KIM-FORTH PART 5          **
3015 ;** DISK FILE FTH30              **
3016 *****
3017
3018 ;KIM AUTOMATIC CASSETTE MOTOR CONTROL
3019 ;CASSETTE 0 IS CONTROLLED BY BIT 3 OF $1702
3020 ;CASSETTE 1 IS CONTROLLED BY BIT 2 OF $1702
3021
3022      IFE KIM-1
3023
3024 ;** TURN OFF MOTOR 0
3025
3026 TOFFO      LDA PBD
3027      ORA #$08
3028      STA PBD
3029      RTS
3030
3031 ;** TURN OFF MOTOR 1
3032
3033 TOFF1      LDA PBD
3034      ORA #$04

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3035      STA PBD
3036      RTS
3037
3038 ;** TURN ON MOTOR 0
3039
3040 TONO      LDA PBD
3041      AND #$F7
3042      STA PBD
3043      RTS
3044
3045 ;** TURN ON MOTOR 1
3046
3047 TON1      LDA PBD
3048      AND #$FB
3049      STA PBD
3050      RTS
3051
3052 ;** TOGGLE MOTOR 0
3053
3054 TOGO      LDA PBD
3055      EOR #$08
3056      STA PBD
3057      RTS
3058
3059 ;** TOGGLE MOTOR 1
3060
3061 TOG1      LDA PBD
3062      EOR #$04
3063      STA PBD
3064      RTS
3065
3066      ***
3067
3068      IFE MYKIM-1
3069
3070 BEEP      JSR SAVER
3071      LDA #$10
3072      STA VIA.ACR
3073      LDA #$0F
3074      STA VIA.SR
3075      LDA #$80
3076      STA VIA.T2LL
3077      JSR DELAY
3078      LDA #$00
3079      STA VIA.ACR
3080      JMP RESALL
3081
3082 DELAY     JSR SAVER
3083      LDY #$FF
3084 DELAY1    LDX #$FF
3085 DELAY2    DEX
3086      BNE DELAY2
3087      DEY
3088      BNE DELAY1
3089      JMP RESALL
3090      ***
3091
3092      IFE KIM-1

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3093
3094 INCH    BIT SAD      ;WAIT FOR START BIT
3095 BMI INCH
3096 LDA SBD      ;TURN OFF OUTPUT
3097 AND #$FE
3098 STA SBD
3099 JSR GETCH
3100 PHA
3101 LDA SBD      ;TURN OUTPUT ON
3102 ORA #$01
3103 STA SBD
3104 PLA
3105 RETURN   RTS
3106
3107 INSTAT   JSR SAVER   ;ANY KEY BREAK
3108 LDX #$08
3109 INST1    BIT SAD
3110 BPL INST2
3111 DEX
3112 BPL INST1
3113 CLC
3114 BCC INST3
3115 INST2    LDA SBD      ; TURN OFF PORT
3116 AND #$FE
3117 STA SBD
3118 JSR BELL.VEC
3119 LDA SBD
3120 ORA #$01
3121 STA SBD
3122 SEC
3123 INST3    JMP RESXF
3124
3125 CREAD    JSR SAVER
3126 JSR LOAD>
3127 LDA #$00
3128 BCC CREAD1
3129 LDA #$01
3130 CREAD1   JMP RESXAF
3131
3132 LOAD>   LDX #$00
3133 STX TSPEED
3134
3135 LOADT    JSR SET.SPEED   ;INITIALIZE
3136 JSR TAPE.INIT
3137
3138 LOADT2   JSR SYNC      ;GET IN SYNC
3139 LOADT4   JSR RDBYT
3140 STA SAD      ;DISPLAY ON LEDS
3141 CMP #SYN
3142 BEQ LOADT4
3143 CMP #'*
3144 BNE LOADT2   ;TRY AGAIN
3145 JSR RDBYT
3146 STA SAD      ;DISPLAY
3147 STA TFIID>+1
3148 CMP TFIID>
3149 BEQ LOADT5
3150 LDA TFIID>

```

```

3151 BEQ LOADT5   ;LOAD ANYWAY
3152 CMP #$FF
3153 BNE LOADT2   ;TRY AGAIN
3154
3155 LDX #$03
3156 IGNOR    JSR RDCHK PASS OVER
3157 DEX
3158 BPL IGNOR
3159 BMI LOADT7
3160
3161 LOADT5   JSR RDCHK
3162 STA *BUFADL
3163 STA TSAD>
3164 JSR RDCHK
3165 STA *BUFADH
3166 STA TSAD>+1
3167
3168 JSR RDCHK
3169 STA TEAD>
3170 JSR RDCHK
3171 STA TEAD>+1
3172
3173 LOADT7   JSR RDBYT
3174 LDX *BUFADL ;CHECK FOR END
3175 CPX TEAD> ;OF TAPE FILE
3176 BNE LOADT8
3177 LDX *BUFADH
3178 CPX TEAD>+1
3179 BEQ LOADT9
3180
3181 LOADT8   JSR CHKT
3182 LDY #$00
3183 STA (BUFADL),Y
3184 INC *BUFADL
3185 BNE LOADT7
3186 INC *BUFADH
3187 BNE LOADT7
3188
3189 LOADT9   CMP #'/ ;END OF FILE MARKER
3190 BNE NGEXIT
3191 JSR RDBYT
3192 CMP SCR6
3193 BNE NGEXIT
3194 JSR RDBYT
3195 CMP SCR7
3196 BEQ OKEXIT
3197
3198 NGEXIT   SEC
3199 BCS EXIT>
3200 OKEXIT   CLC
3201 EXIT>   PHP
3202 JSR INIT1
3203 PLP
3204 RTS
3205
3206 CWRITE  JSR SAVER
3207 JSR DUMP>
3208 LDA #$00

```

```

3209      BCC CWRITE1
3210      LDA #$01
3211      JMP RESXAF
3212
3213 DUMP>    LDA #$03
3214      LDX #$00
3215      STA TAPE.DEL
3216      STX TSPEED
3217
3218 DUMPT     JSR SET.SPEED
3219      JSR TAPE.INIT
3220      LDX TAPE.DEL
3221      LDY #$80
3222
3223 DUMPT1    TXA
3224      PHA
3225 DUMPT1A   LDA #SYN
3226      JSR OUTBYT
3227      DEY
3228      BNE DUMPT1A
3229      PLA
3230      TAX
3231      DEX
3232      BNE DUMPT1
3233
3234      LDA #'*'
3235      JSR OUTBYT
3236      LDA TFIID>
3237      JSR OUTBYT
3238      LDA TSAD>
3239      JSR OUTCHK
3240      LDA TSAD>+1
3241      JSR OUTCHK
3242      LDA TEAD>
3243      JSR OUTCHK
3244      LDA TEAD>+1
3245      JSR OUTCHK
3246
3247 DUMPT2    LDA *BUFADL
3248      CMP TEAD>
3249      BNE DUMPT4
3250      LDA *BUFADH
3251      CMP TEAD>+1
3252      BNE DUMPT4
3253      LDA #'/
3254      JSR OUTBYT
3255      LDA SCR6
3256      JSR OUTBYT
3257      LDA SCR7
3258      JSR OUTBYT
3259      LDA #EOT
3260      JSR OUTBYT
3261      LDA #EOT
3262      JSR OUTBYT
3263      JMP OKEKIT
3264
3265 DUMPT4    LDY #$00
3266      LDA (BUFADL),Y

```

```

3267      JSR OUTCHK
3268      INC *BUFADL
3269      BNE DUMPT2
3270      INC *BUFADH
3271      JMP DUMPT2
3272
3273 SET.SPEED  LDX TSPEED
3274      LDA BDRY.TAB,X
3275      STA *BDRY
3276      LDA TAPE1.TAB,X
3277      STA TAPE1
3278      LDA TAPE2.TAB,X
3279      STA TAPE2
3280      RTS
3281
3282      BDRY.TAB .BY $46 $23 $17 $11
3283      TAPE1.TAB .BY $33 $19 $11 $0C
3284      TAPE2.TAB .BY $5A $2D $1E $16
3285
3286 TAPE.INIT  JSR ZERCK ;ZERO CHECK SUM
3287      JSR CONFIG
3288      LDA TSAD>
3289      STA *BUFADL
3290      LDA TSAD>+1
3291      STA *BUFADH
3292      INC TEAD>
3293      BNE =+4
3294      INC TEAD>+1
3295      RTS
3296
3297      SYNC   LDA #$7F
3298      STA SADD
3299      LDA #$13
3300      STA SBD
3301
3302      SYNC5  JSR SYNBIT
3303      ROR *CHAR
3304      LDA *CHAR
3305      STA SAD
3306      CMP #SYN
3307      BNE SYNC5
3308      LDX #$0A
3309
3310      SYNC10 JSR RD BYT
3311      STA SAD
3312      CMP #SYN
3313      BNE SYNC5
3314      DEX
3315      BNE SYNC10
3316      DEX
3317      RTS
3318
3319      SYNBIT JSR GETTR
3320      BCS GETTR
3321      RTS
3322
3323      GETTR  LDY #$FF
3324      NOTR   LDA PBD

```

3325 AND #BIT.IN  
 3326 CMP \*OLD  
 3327 BEQ NOTR  
 3328 STA \*OLD  
 3329 LDA TIMER  
 3330 STY TIM8  
 3331 CLC  
 3332 ADC \*BDRY  
 3333 RTS  
 3334  
 3335 RDBYT STX SCR8  
 3336 LDX #\$08  
 3337 JSR GETTR  
 3338 BCS RDBYT3  
 3339 RDBYT1 JSR GETTR  
 3340 BCC RDBYT2  
 3341 JSR GETTR  
 3342 SEC  
 3343 RDBYT2 ROR \*CHAR  
 3344 DEX  
 3345 BNE RDBYT1  
 3346 LDA \*CHAR  
 3347 RDBYT3 LDX SCR8  
 3348 RTS  
 3349  
 3350 RDCHK JSR RDBYT  
 3351 JMP CHKT  
 3352  
 3353 CONFIG LDA PBDD  
 3354 ORA #BIT.OUT  
 3355 AND #\$FF-BIT.IN  
 3356 STA PBDD  
 3357 RTS  
 3358  
 3359 OUTCHK JSR CHKT  
 3360 OUTBYT LDX #\$09  
 3361 STY SCR9  
 3362 STA \*CHAR  
 3363 LDA PBD  
 3364  
 3365 OUTBYT1 LSR \*CHAR ;GET BIT  
 3366 EOR #BIT.OUT  
 3367 STA PBD  
 3368 LDY TAPE1  
 3369  
 3370 OUTBYT2 DEY ;DELAY TAPE1 TIME  
 3371 BNE OUTBYT2  
 3372 BCC OUTBYT5  
 3373 EOR #BIT.OUT ;FLIP BIT  
 3374 STA PBD  
 3375  
 3376 OUTBYT3 LDY TAPE2  
 3377 OUTBYT4 DEY ;DELAY TAPE2 TIME  
 3378 BNE OUTBYT4  
 3379 DEX  
 3380 BNE OUTBYT1 ;NEXT BIT  
 3381 LDY SCR9  
 3382 RTS

3383  
 3384 NOP  
 3385 OUTBYT5 NOP ;DELAY SAME AMT  
 3386 BCC OUTBYT3 \*\*\*  
 3387  
 3388  
 3389 .CT FTH35  
 3390 ;  
 3391 ;\*\*\*\*\*  
 3392 ;\*\* SK-FORTH (79-STANDARD) \*\*  
 3393 ;\*\* BY JACK W. BROWN \*\*  
 3394 ;\*\* COPYRIGHT (C) 1980 \*\*  
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 3397 ;\*\* P. O. BOX 397 \*\*  
 3398 ;\*\* NEW WESTMINSTER, B. C. \*\*  
 3399 ;\*\* V3L 4Y7, CANADA \*\*  
 3400 ;\*\*\*\*\*  
 3401 ;  
 3402  
 3403 ;\*\*\*\*\*  
 3404 ;\*\* SYM/KIM-FORTH PART 6 \*\*  
 3405 ;\*\* DISK FILE FTH35 \*\*  
 3406 ;\*\*\*\*\*  
 3407  
 3408  
 3409 ; INITIALIZE FOR SYM TAPE I/O  
 3410  
 3411 IFE SYM-1  
 3412 TAPE.INIT LDY #\$80 ;HI SPEED MODE  
 3413 STY \*MODE  
 3414 LDA #\$09  
 3415 JSR CONFIG ;I/O CONFIGURATION  
 3416 JSR ZERCK ;ZERO CHECK SUM  
 3417 JSR P2SCR ;START AD TO \$00FE  
 3418 RTS  
 3419 \*\*\*  
 3420  
 3421 ; TSAD  
 3422  
 1477- A0 80 3423 .BY \$84 'TSA' \$C4  
 1479- 84 FD 3413  
 147B- A9 09 3414  
 147D- 20 A5 89 3415  
 1480- 20 2E 83 3416  
 1483- 20 9C 82 3417  
 1486- 60 3418  
 3420  
 3421 ; TSAD  
 3422  
 1487- 84 54 53 3423 .BY \$84 'TSA' \$C4  
 148A- 41 C4 3424 .SI CCOLD-\$08  
 148C- 12 14 3424 .SI CCOLD-\$08  
 148E- 48 09 3425 TSAD .SI DOCON  
 1490- 4C A6 3426 .SE TSAD>  
 3427  
 3428 ; TEAD  
 3429  
 1492- 84 54 45 3430 .BY \$84 'TEA' \$C4  
 1495- 41 C4 3430  
 1497- 87 14 3431 .SI TSAD-\$07  
 1499- 48 09 3432 TEAD .SI DOCON  
 149B- 4A A6 3433 .SE TEAD>  
 3434  
 3435 ; TFID

149D-	84 54 46	3436	
14A0-	49 C4	3437	.BY \$84 'TFI' \$C4
14A2-	92 14	3438	.SI TEAD-\$07
14A4-	48 09	3439	TF ID .SI DOCON
14A6-	4E A6	3440	.SE TFID>
		3441	
		3442 ;	S2
		3443	
14A8-	82 53 B2	3444	.BY \$82 'S' \$B2
14AB-	9D 14	3445	.SI TFID-\$07
14AD-	AF 14	3446	S2 .SI +=2
14AF-	20 24 02	3447	JSR CWRITE.VEC
14B2-	4C A2 06	3448	JMP PUSHOA
		3449	
		3450	IFE SYM-1
14B5-	20 88 81	3451	CWRITE JSR SAVER
14B8-	20 93 82	3452	JSR INCP3
14BB-	20 77 14	3453	JSR TAPE.INIT
14BE-	20 8A 8E	3454	JSR MONSAVE
14C1-	A9 00	3455	LDA #\$00
14C3-	90 02	3456	BCC CWRITE1
14C5-	A9 01	3457	LDA #\$01
14C7-	4C B8 81	3458	CWRITE1 JMP RESXAF
		3459	***
		3460	
		3461 ;	L2
		3462	
14CA-	82 4C B2	3463	.BY \$82 'L' \$B2
14CD-	A8 14	3464	.SI S2-\$05
14CF-	D1 14	3465	L2 .SI +=2
14D1-	AD 4E A6	3466	LDA TFID>
14D4-	C9 FF	3467	CMP #\$FF
14D6-	F0 1B	3468	BEQ L2ERR
14D8-	20 21 02	3469	JSR CREAD.VEC
14DB-	4C A2 06	3470	JMP PUSHOA
		3471	
		3472 ;	LF2
		3473	
14DE-	83 4C 46	3474	.BY \$83 'LF' \$B2
14E1-	B2		
14E2-	CA 14	3475	.SI L2-\$05
14E4-	E6 14	3476	LF2 .SI +=2
14E6-	AD 4E A6	3477	LDA TFID>
14E9-	C9 FF	3478	CMP #\$FF
14EB-	D0 06	3479	BNE L2ERR
14ED-	20 21 02	3480	JSR CREAD.VEC
14F0-	4C A2 06	3481	JMP PUSHOA
		3482	
14F3-	A9 01	3483	L2ERR LDA #\$01
14F5-	4C A2 06	3484	JMP PUSHOA
		3485	
		3486	IFE SYM-1
14F8-	20 88 81	3487	CREAD JSR SAVER
14FB-	20 93 82	3488	JSR INCP3
14FE-	20 77 14	3489	JSR TAPE.INIT
1501-	20 7B 8C	3490	JSR MONLOAD
1504-	A9 00	3491	LDA #\$00

1506-	90 02	3492	BCC CREAD1
1508-	A9 01	3493	LDA #\$01
150A-	4C B8 81	3494	CREAD1 JMP RESXAF
		3495	***
		3496	
		3497	
		3498 ;	R/T
		3499	
150D-	83 52 2F	3500	.BY \$83 'R/' \$D4
1510-	D4		
1511-	DE 14	3501	.SI LF2-\$06
1513-	E3 11	3502	R/T .SI DOREAT
1515-	00 00	3503	.SE \$00
		3504	
		3505 ;	W/T
		3506	
1517-	83 57 2F	3507	.BY \$83 'W/' \$D4
151A-	D4		
151B-	0D 15	3508	.SI R/T-\$06
151D-	E3 11	3509	W/T .SI DOREAT
151F-	00 00	3510	.SE \$00
		3511	
		3512 ;	HARD
		3513	
1521-	84 48 41	3514	.BY \$84 'HAR' \$C4
1524-	52 C4		
1526-	17 15	3515	.SI W/T-\$06
1528-	E3 11	3516	HARD .SI DOREAT
152A-	00 00	3517	.SE \$00
		3518	
		3519 ;	TAPE
		3520	
152C-	84 54 41	3521	.BY \$84 'TAP' \$C5
152F-	50 C5		
1531-	21 15	3522	.SI HARD-\$07
1533-	35 15	3523	TAPE .SI +=2
1535-	B5 00	3524	LDA *0,X
1537-	F0 10	3525	BEQ TAPE0
1539-	B5 02	3526	LDA *2,X
153B-	F0 06	3527	BEQ TAPE1.OFF
153D-	20 39 19	3528	JSR TON1
1540-	4C 31 04	3529	JMP POPTWO
1543-	20 27 19	3530	TAPE1.OFF JSR TOFF1
1546-	4C 31 04	3531	JMP POPTWO
1549-	B5 02	3532	TAPE0 LDA *2,X
1548-	F0 06	3533	BEQ TAPEO.OFF
154D-	20 30 19	3534	JSR TONO
1550-	4C 31 04	3535	JMP POPTWO
1553-	20 1E 19	3536	TAPEO.OFF JSR TOFFO
1556-	4C 31 04	3537	JMP POPTWO
		3538	
		3539 ;	S->D
		3540	
1559-	84 53 2D	3541	.BY \$84 'S->' \$C4
155C-	3E C4		
155E-	2C 15	3542	.SI TAPE-\$07
1560-	FC 08	3543	STOD .SI DOCOL
1562-	5E 08	3544	.SI DUP

1564-	68 07	3545	.SI ZLESS
1566-	FB 07	3546	.SI NEGATE
1568-	D2 06	3547	.SI SEMIS
		3548	
		3549 ;	+
		3550	
156A-	82 2B AD	3551	.BY \$82 '+' \$AD
156D-	59 15	3552	.SI STOD-\$07
156F-	FC 08	3553 PM	.SI DOCOL
1571-	68 07	3554	.SI ZLESS
1573-	9B 03	3555	.SI ZBRAN
1575-	04 00	3556	.SE PM1--
1577-	FB 07	3557	.SI NEGATE
1579-	D2 06	3558 PM1	.SI SEMIS
		3559	
		3560 ;	D+-
		3561	
157B-	83 44 2B	3562	.BY \$83 'D+' \$AD
157E-	AD		
157F-	6A 15	3563	.SI PM-\$05
1581-	FC 08	3564 DPM	.SI DOCOL
1583-	68 07	3565	.SI ZLESS
1585-	9B 03	3566	.SI ZBRAN
1587-	04 00	3567	.SE DPM1--
1589-	15 08	3568	.SI DNNEGATE
158B-	D2 06	3569 DPM1	.SI SEMIS
		3570	
		3571 ;	ABS
		3572	
158D-	83 41 42	3573	.BY \$83 'AB' \$D3
1590-	D3		
1591-	7B 15	3574	.SI DPM-\$06
1593-	FC 08	3575 ABS	.SI DOCOL
1595-	5E 08	3576	.SI DUP
1597-	6F 15	3577	.SI PM
1599-	D2 06	3578	.SI SEMIS
		3579	
		3580 ;	DABS
		3581	
159B-	84 44 41	3582	.BY \$84 'DAB' \$D3
159E-	42 D3		
15A0-	8D 15	3583	.SI ABS-\$06
15A2-	FC 08	3584 DABS	.SI DOCOL
15A4-	5E 08	3585	.SI DUP
15A6-	81 15	3586	.SI DPM
15A8-	D2 06	3587	.SI SEMIS
		3588	
		3589 ;	MIN
		3590	
15AA-	83 4D 49	3591	.BY \$83 'MI' \$CE
15AD-	CE		
15AE-	9B 15	3592	.SI DABS-\$07
15B0-	FC 08	3593 MIN	.SI DOCOL
15B2-	2C 08	3594	.SI OVER
15B4-	2C 08	3595	.SI OVER
15B6-	18 OC	3596	.SI GREAT
15B8-	9B 03	3597	.SI ZBRAN
15BA-	04 00	3598	.SE MIN1--

15BC-	46 08	3599	.SI SWAP
15BE-	3D 08	3600 MIN1	.SI DROP
15CO-	D2 06	3601	.SI SEMIS
		3602	
		3603 ;	MAX
		3604	
15C2-	83 4D 41	3605	.BY \$83 'MA' \$D8
15C5-	D8		
15C6-	AA 15	3606	.SI MIN-\$06
15C8-	FC 08	3607 MAX	.SI DOCOL
15CA-	2C 08	3608	.SI OVER
15CC-	2C 08	3609	.SI OVER
15CE-	C2 08	3610	.SI LESS
15DO-	9B 03	3611	.SI ZBRAN
15D2-	04 00	3612	.SE MAX1--
15D4-	46 08	3613	.SI SWAP
15D6-	3D 08	3614 MAX1	.SI DROP
15D8-	D2 06	3615	.SI SEMIS
		3616	
		3617 ;	M*
		3618	
15DA-	82 4D AA	3619	.BY \$82 'M' \$AA
15DD-	C2 15	3620	.SI MAX-\$06
15DF-	FC 08	3621 MSTAR	.SI DOCOL
15E1-	2C 08	3622	.SI OVER
15E3-	2C 08	3623	.SI OVER
15E5-	89 06	3624	.SI XOR
15E7-	00 07	3625	.SI TOR
15E9-	93 15	3626	.SI ABS
15EB-	46 08	3627	.SI SWAP
15ED-	93 15	3628	.SI ABS
15EF-	E4 05	3629	.SI USTAR
15F1-	12 07	3630	.SI RFROM
15F3-	81 15	3631	.SI DPM
15F5-	D2 06	3632	.SI SEMIS
		3633	
		3634 ;	M/
		3635	
15F7-	82 4D AF	3636	.BY \$82 'M' \$AF
15FA-	DA 15	3637	.SI MSTAR-\$05
15FC-	FC 08	3638 MSLAS	.SI DOCOL
15FE-	2C 08	3639	.SI OVER
1600-	00 07	3640	.SI TOR
1602-	00 07	3641	.SI TOR
1604-	A2 15	3642	.SI DABS
1606-	24 07	3643	.SI R
1608-	93 15	3644	.SI ABS
160A-	21 06	3645	.SI USLAS
160C-	12 07	3646	.SI RFROM
160E-	24 07	3647	.SI R
1610-	89 06	3648	.SI XOR
1612-	6F 15	3649	.SI PM
1614-	46 08	3650	.SI SWAP
1616-	12 07	3651	.SI RFROM
1618-	6F 15	3652	.SI PM
161A-	46 08	3653	.SI SWAP
161C-	D2 06	3654	.SI SEMIS
		3655	

	3656 ;	*	
	3657		
161E-	81 AA	3658	.BY \$81 \$AA
1620-	F7 15	3659	.SI MSLAS-\$05
1622-	FC 08	3660	STAR .SI DOCOL
1624-	E4 05	3661	.SI USTAR
1626-	3D 08	3662	.SI DROP
1628-	D2 06	3663	.SI SEMIS
	3664		
	3665 ;	/MOD	
	3666		
162A-	84 2F 4D	3667	.BY \$84 '/MO' \$C4
162D-	4F C4		
162F-	1E 16	3668	.SI STAR-\$04
1631-	FC 08	3669	SLMOD .SI DOCOL
1633-	00 07	3670	.SI TOR
1635-	60 15	3671	.SI STOD
1637-	12 07	3672	.SI RFROM
1639-	FC 15	3673	.SI MSLAS
163B-	D2 06	3674	.SI SEMIS
	3675		
	3676 ;	/	
	3677		
163D-	81 AF	3678	.BY \$81 \$AF
163F-	2A 16	3679	.SI SLMOD-\$07
1641-	FC 08	3680	SLASH .SI DOCOL
1643-	31 16	3681	.SI SLMOD
1645-	46 08	3682	.SI SWAP
1647-	3D 08	3683	.SI DROP
1649-	D2 06	3684	.SI SEMIS
	3685		
	3686 ;	MOD	
	3687		
164B-	83 4D 4F	3688	.BY \$83 'MO' \$C4
164E-	C4		
164F-	3D 16	3689	.SI SLASH-\$04
1651-	FC 08	3690	MOD .SI DOCOL
1653-	31 16	3691	.SI SLMOD
1655-	3D 08	3692	.SI DROP
1657-	D2 06	3693	.SI SEMIS
	3694		
	3695 ;	*/MOD	
	3696		
1659-	85 2A 2F	3697	.BY \$85 '*/MO' \$C4
165C-	4D 4F C4		
165R-	4B 16	3698	.SI MOD-\$06
1661-	FC 08	3699	SSMOD .SI DOCOL
1663-	00 07	3700	.SI TOR
1665-	DF 15	3701	.SI MSTAR
1667-	12 07	3702	.SI RFROM
1669-	FC 15	3703	.SI MSLAS
166B-	D2 06	3704	.SI SEMIS
	3705		
	3706 ;	*/	
	3707		
166D-	82 2A AF	3708	.BY \$82 '** \$AF
1670-	59 16	3709	.SI SSMOD-\$08
1672-	FC 08	3710	SSLAS .SI DOCOL

	1674-	61 16	3711	.SI SSMOD
	1676-	46 08	3712	.SI SWAP
	1678-	3D 08	3713	.SI DROP
	167A-	D2 06	3714	.SI SEMIS
			3715	
			3716 ;	M/MOD
			3717	
	167C-	85 4D 2F	3718	.BY \$85 'M/MO' \$C4
	167F-	4D 4F C4		
	1682-	6D 16	3719	.SI SSLAS-\$05
	1684-	FC 08	3720	MSMOD .SI DOCOL
	1686-	00 07	3721	.SI TOR
	1688-	88 09	3722	.SI ZERO
	168A-	24 07	3723	.SI R
	168C-	21 06	3724	.SI USLAS
	168E-	12 07	3725	.SI RFROM
	1690-	46 08	3726	.SI SWAP
	1692-	00 07	3727	.SI TOR
	1694-	21 06	3728	.SI USLAS
	1696-	12 07	3729	.SI RFROM
	1698-	D2 06	3730	.SI SEMIS
			3731	
			3732 ;	USE
			3733	
	169A-	83 55 53	3734	.BY \$83 'US' \$C5
	169D-	C5		
	169E-	7C 16	3735	.SI MSMOD-\$08
	16A0-	E3 11	3736	USE .SI DOCREAT
	16A2-	78 57	3737	.SE DAREA
			3738	
			3739 ;	PREV
			3740	
	16A4-	84 50 52	3741	.BY \$84 'PRE' \$D6
	16A7-	45 D6		
	16A9-	9A 16	3742	.SI USE-\$06
	16AB-	E3 11	3743	PREV .SI DOCREAT
	16AD-	78 57	3744	.SE DAREA
			3745	
			3746 ;	+BUF
			3747	
	16AF-	84 2B 42	3748	.BY \$84 '+BU' \$C6
	16B2-	55 C6		
	16B4-	A4 16	3749	.SI PREV-\$07
	16B6-	FC 08	3750	PBUF .SI DOCOL
	16B8-	E0 09	3751	.SI BBUF
	16BA-	8F 02	3752	.SI CLIT
	16BC-	04	3753	.BY \$04
	16BD-	90 07	3754	.SI PLUS
	16BF-	90 07	3755	.SI PLUS
	16C1-	5E 08	3756	.SI DUP
	16C3-	D4 09	3757	.SI LIMIT
	16C5-	8B 0B	3758	.SI EQUAL
	16C7-	9B 03	3759	.SI ZBRAN
	16C9-	06 00	3760	.SE PBUF1--
	16CB-	3D 08	3761	.SI DROP
	16CD-	C8 09	3762	.SI FIRST
	16CF-	5E 08	3763	PBUF1 .SI DUP
	16D1-	AB 16	3764	.SI PREV

16D3- 9D 08	3765	.SI AT
16D5- 3A 0B	3766	.SI SUB
16D7- D2 06	3767	.SI SEMIS
	3768	
	3769 ;	UPDATE
	3770	
16D9- 86 55 50	3771	.BY \$86 'UPDAT' \$C5
16DC- 44 41 54		
16DF- C5		
16E0- AF 16	3772	.SI PBUF-\$07
16E2- FC 08	3773	UPDAT
16E4- AB 16	3774	.SI PREV
16E6- 9D 08	3775	.SI AT
16E8- 9D 08	3776	.SI AT
16EA- 49 02	3777	.SI LIT
16EC- 00 80	3778	.SE \$8000
16EE- 73 06	3779	.SI OR
16F0- AB 16	3780	.SI PREV
16F2- 9D 08	3781	.SI AT
16F4- C1 08	3782	.SI STORE
16F6- D2 06	3783	.SI SEMIS
	3784	
	3785 ;	EMPTY-BUFFERS
	3786	
16F8- 8D 45 4D	3787	.BY \$8D 'EMPTY-BUFFER' \$D3
16FB- 50 54 59		
16FE- 2D 42 55		
1701- 46 46 45		
1704- 52 D3		
1706- D9 16	3788	.SI UPDAT-\$09
1708- FC 08	3789	EMBUF
170A- C8 09	3790	.SI DOCOL
170C- D4 09	3791	.SI FIRST
170E- 2C 08	3792	.SI LIMIT
1710- 3A 0B	3793	.SI OVER
1712- AF 0F	3794	.SI SUB
1714- D2 06	3795	.SI ERASE
	3796	
	3797 ;	BUFFER
	3798	
1716- 86 42 55	3799	.BY \$86 'BUFFE' \$D2
1719- 46 46 45		
171C- D2		
171D- F8 16	3800	.SI EMBUF-\$10
171F- FC 08	3801	BUFFR
1721- A0 16	3802	.SI USE
1723- 9D 08	3803	.SI AT
1725- 5E 08	3804	.SI DUP
1727- 00 07	3805	.SI TOR
1729- B6 16	3806	BUFFR1
172B- 9B 03	3807	.SI PBUF
172D- FC FF	3808	.SI ZBRAN
172F- A0 16	3809	.SE BUFFR1--
1731- C1 08	3810	.SI USE
1733- 24 07	3811	.SI STORE
1735- 9D 08	3812	.SI R
1737- 68 07	3813	.SI AT
1739- 9B 03	3814	.SI ZLESS
		.SI ZBRAN

173B- 14 00	3815	.SE BUFFR2--
173D- 24 07	3816	.SI R
173F- EE 0A	3817	.SI TWOP
1741- 24 07	3818	.SI R
1743- 9D 08	3819	.SI AT
1745- 49 02	3820	.SI LIT
1747- FF 7F	3821	.SE \$FFFF
1749- 5E 06	3822	.SI ANDD
174B- 88 09	3823	.SI ZERO
174D- A5 1B	3824	.SI RSLW
174F- 24 07	3825	BUFFR2
1751- C1 08	3826	.SI R
1753- 24 07	3827	.SI STORE
1755- AB 16	3828	.SI PREV
1757- C1 08	3829	.SI STORE
1759- 12 07	3830	.SI RFROM
175B- EE 0A	3831	.SI TWOP
175D- D2 06	3832	.SI SEMIS
	3833	
	3834 ;	BLOCK
	3835	
175F- 85 42 4C	3836	.BY \$85 'BLOC' \$CB
1762- 4F 43 CB		
1765- 16 17	3837	.SI BUFFR-\$09
1767- FC 08	3838	BLOCK
1769- 00 07	3839	.SI TOR
176B- AB 16	3840	.SI PREV
176D- 9D 08	3841	.SI AT
176F- 5E 08	3842	.SI DUP
1771- 9D 08	3843	.SI AT
1773- 24 07	3844	.SI R
1775- 3A 08	3845	.SI SUB
1777- 5E 08	3846	.SI DUP
1779- 90 07	3847	.SI PLUS
177B- 9B 03	3848	.SI ZBRAN
177D- 32 00	3849	.SE BLOCK3--
177F- B6 16	3850	BLOCK1
1781- 53 07	3851	.SI PBUF
1783- 9B 03	3852	.SI ZBRAN
1785- 12 00	3853	.SE BLOCK2--
1787- 3D 08	3854	.SI ZEQU
1789- 24 07	3855	.SI R
178B- 1F 17	3856	.SI BUFFR
178D- 5E 08	3857	.SI DUP
178F- 24 07	3858	.SI R
1791- 90 09	3859	.SI ONE
1793- A5 1B	3860	.SI RSLW
1795- 61 0B	3861	.SI TWOSB
1797- 5E 08	3862	BLOCK2
		.SI DUP
1799- 9D 08	3863	.SI AT
179B- 24 07	3864	.SI R
179D- 3A 0B	3865	.SI SUB
179F- 5E 08	3866	.SI DUP
17A1- 90 07	3867	.SI PLUS
17A3- 53 07	3868	.SI ZEQU
17A5- 9B 03	3869	.SI ZBRAN
17A7- D8 FF	3870	.SE BLOCK1--
17A9- 5E 08	3871	.SI DUP

17AB-	AB 16	3872	.SI PREV
17AD-	C1 08	3873	.SI STORE
17AF-	12 07	3874 BLOCK3	.SI RFROM
17B1-	3D 08	3875	.SI DROP
17B3-	EE 0A	3876	.SI TWOP
17B5-	D2 06	3877	.SI SEMIS
		3878	
		3879 ;	SAVE-BUFFERS
		3880	
17B7-	8C 53 41	3881	.BY \$8C 'SAVE-BUFFER' \$D3
17BA-	56 45 2D		
17BD-	42 55 46		
17CO-	46 45 52		
17C3-	D3		
17C4-	5F 17	3882	.SI BLOCK-\$08
17C6-	FC 08	3883 SAVBUF	.SI DOCOL
17C8-	F7 09	3884	.SI NBUF
17CA-	E1 0A	3885	.SI ONEP
17CC-	88 09	3886	.SI ZERO
17CE-	23 04	3887	.SI PDO
17DO-	49 02	3888 SAVBUF1	.SI LIT
17D2-	FF 7F	3889	.SE \$7FFF
17D4-	1F 17	3890	.SI BUFFR
17D6-	3D 08	3891	.SI DROP
17D8-	BC 03	3892	.SI PLOOP
17DA-	F6 FF	3893	.SE SAVBUF1=-
17DC-	D2 06	3894	.SI SEMIS
		3895	
		3896	.CT 1FTH40
		3897 ;	
		3898 ;*****	
		3899 ;** SK-FORTH (79-STANDARD) **	
		3900 ;** BY JACK W. BROWN **	
		3901 ;** COPYRIGHT (C) 1980 **	
		3902 ;** SATURN SOFTWARE LIMITED **	
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		3904 ;** P. O. BOX 397 **	
		3905 ;** NEW WESTMINSTER, B. C. **	
		3906 ;** V3L 4Y7, CANADA **	
		3907 ;*****	
		3908 ;	
		3909	
		3910 ;*****	
		3911 ;** SYM/KIM-FORTH PART 7 **	
		3912 ;** DISK FILE FTH40 **	
		3913 ;*****	
		3914	
		3915 ; (LINE)	
		3916	
17DE-	86 28 4C	3917	.BY \$86 '(LINE' \$A9
17E1-	49 4E 45		
17E4-	A9		
17E5-	B7 17	3918	.SI SAVBUF-\$0F
17E7-	FC 08	3919 PLINE	.SI DOCOL
17E9-	00 07	3920	.SI TOR

		17EB-	BC 09	3921	.SI CSLL
		17ED-	E0 09	3922	.SI BBUF
		17EF-	61 16	3923	.SI SSMOD
		17F1-	12 07	3924	.SI RFROM
		17F3-	03 0A	3925	.SI BSCR
		17F5-	22 16	3926	.SI STAR
		17F7-	90 07	3927	.SI PLUS
		17F9-	67 17	3928	.SI BLOCK
		17FB-	90 07	3929	.SI PLUS
		17FD-	BC 09	3930	.SI CSLL
		17FF-	D2 06	3931	.SI SEMIS
				3932	
				3933 ;	.LINE
				3934	
		1801-	85 2E 4C	3935	.BY \$85 '.LIN' \$C5
		1804-	49 4E C5		
		1807-	DE 17	3936	.SI PLINE-\$09
		1809-	FC 08	3937 DLINE	.SI DOCOL
		180B-	E7 17	3938	.SI PLINE
		180D-	90 0E	3939	.SI DTRAI
		180F-	62 0E	3940	.SI TYPE
		1811-	D2 06	3941	.SI SEMIS
				3942	
				3943 ;	MESSAGE
				3944	
		1813-	87 4D 45	3945	.BY \$87 'MESSAG' \$C5
		1816-	53 53 41		
		1819-	47 C5		
		181B-	01 18	3946	.SI DLINE-\$08
		181D-	FC 08	3947 MESS	.SI DOCOL
		181F-	39 0A	3948	.SI WARN
		1821-	9D 08	3949	.SI AT
		1823-	9B 03	3950	.SI ZBRAN
		1825-	11 00	3951	.SE MESS2=-
		1827-	49 0C	3952	.SI DDUP
		1829-	9B 03	3953	.SI ZBRAN
		182B-	07 00	3954	.SE MESS1=-
		182D-	8F 02	3955	.SI CLIT
		182F-	01	3956	.BY \$01
		1830-	09 18	3957	.SI DLINE
		1832-	7C 03	3958 MESS1	.SI BRAN
		1834-	0D 00	3959	.SE MESS3=-
		1836-	BF 0E	3960 MESS2	.SI PDOTQ
		1838-	06 4D 53	3961	.BY \$06 'MSG #'
		183B-	47 20 23		
		183E-	20		
		183F-	18 20	3962	.SI DOT
		1841-	D2 06	3963 MESS3	.SI SEMIS
				3964	
				3965 ;	LOAD
				3966	
				3967	.BY \$84 'LOA' \$C4
		1843-	84 4C 4F		
		1846-	41 C4		
		1848-	13 18	3968	.SI MESS-\$0A
		184A-	FC 08	3969 LOAD	.SI DOCOL
		184C-	63 0A	3970	.SI BLK
		184E-	9D 08	3971	.SI AT
		1850-	00 07	3972	.SI TOR

1852- 6C 0A	3973	.SI IN
1854- 9D 08	3974	.SI AT
1856- 00 07	3975	.SI TOR
1858- 88 09	3976	.SI ZERO
185A- 6C 0A	3977	.SI IN
185C- C1 08	3978	.SI STORE
185E- 03 0A	3979	.SI BSCR
1860- 22 16	3980	.SI STAR
1862- 63 0A	3981	.SI BLK
1864- C1 08	3982	.SI STORE
1866- 93 12	3983	.SI INTER
1868- 12 07	3984	.SI RFROM
186A- 6C 0A	3985	.SI IN
186C- C1 08	3986	.SI STORE
186E- 12 07	3987	.SI RFROM
1870- 63 0A	3988	.SI BLK
1872- C1 08	3989	.SI STORE
1874- D2 06	3990	.SI SEMIS
	3991	
	3992 ;	-->
	3993	
1876- C3 2D 2D	3994	.BY \$C3 '---' \$BE
1879- BE		
187A- 43 18	3995	.SI LOAD-\$07
187C- FC 08	3996 NSCR	.SI DOCOL
187E- 60 0D	3997	.SI QLOAD
1880- 88 09	3998	.SI ZERO
1882- 6C 0A	3999	.SI IN
1884- C1 08	4000	.SI STORE
1886- 03 0A	4001	.SI BSCR
1888- 63 0A	4002	.SI BLK
188A- 9D 08	4003	.SI AT
188C- 2C 08	4004	.SI OVER
188E- 51 16	4005	.SI MOD
1890- 3A 0B	4006	.SI SUB
1892- 63 0A	4007	.SI BLK
1894- 6D 08	4008	.SI PSTOR
1896- D2 06	4009	.SI SEMIS
	4010	
	4011 ;	XEMIT - OUTPUT ONE CHARACTER
	4012	
1898- 98	4013 XEMIT	TYA
1899- 38	4014	SEC
189A- A0 1A	4015	LDY #\$1A
189C- 71 B3	4016	ADC (UP),Y
189E- 91 B3	4017	STA (UP),Y
18A0- C8	4018	INY ;BUMP USER VARIABLE OUT
18A1- A9 00	4019	LDA #\$00
18A3- 71 B3	4020	ADC (UP),Y
18A5- 91 B3	4021	STA (UP),Y
18A7- B5 00	4022	LDA *\$00,X ;FETCH CHAR TO OUTPUT
18A9- 20 BA 18	4023	JSR OUT.ALL
18AC- 4C 33 04	4024	JMP POP
	4025	
	4026	IFE KIM-1
	4027	
	4028 SAVER	PHP
	4029	PHA

	4030	PHA
	4031	PHA
	4032	PHP
	4033	PHA
	4034	TXA
	4035	PHA
	4036	TSX
	4037	LDA \$0109,X
	4038	STA \$0105,X
	4039	LDA \$0107,X
	4040	STA \$0109,X
	4041	LDA \$0101,X
	4042	STA \$0107,X
	4043	LDA \$0108,X
	4044	STA \$0104,X
	4045	LDA \$0106,X
	4046	STA \$0108,X
	4047	TYA
	4048	STA \$0106,X
	4049	PLA
	4050	TAX
	4051	PLA
	4052	PLP
	4053	RTS
	4054	
	4055 RESXAF	PHP
	4056	TSX
	4057	STA \$0104,X
	4058	PLP
	4059	
	4060 RESXF	PHP
	4061	PLA
	4062	TSX
	4063	STA \$0104,X
	4064	
	4065 RESALL	PLA
	4066	TAY
	4067	PLA
	4068	TAX
	4069	PLA
	4070	PLP
	4071	RTS
	4072	***
	4073	
	18AF- 20 88 81	4074 INTCHR
	18B2- 20 06 02	4075 JSR SAVER
	18B5- 29 7F	4076 JSR TIN.VEC
	18B7- 4C B8 81	4077 AND #\$7F
		JMP RESXAF
	4078 ;	
	4079	
	18BA- 20 88 81	4080 OUT.ALL
	18BD- 48	4081 JSR SAVER
	18BE- AE 2A 15	4082 PHA
	18C1- F0 08	4083 LDX HARD+2
	18C3- 20 0F 02	4084 BEQ CON.OUT ;CONSOLE ECHO ONLY
	18C6- AE 2B 15	4085 JSR POUT.VEC
	18C9- D0 05	4086 LDX HARD+3 ;IF NOT 0
	18CB- 68	4087 BNE OUT.END ;THEN NO CONSOLE ECHO
		PLA

18CC- 48 4088 PHA  
 18CD- 20 09 02 4089 JSR TOUT.VEC  
 18D0- 68 4090 OUT.END PLA  
 18D1- 4C C4 81 4091 JMP RESALL  
 4092  
 18D4- 20 88 81 4093 OUTSP.ALL JSR SAVER  
 18D7- A9 20 4094 LDA #\$20  
 18D9- 20 BA 18 4095 JSR OUT.ALL  
 18DC- 4C C4 81 4096 JMP RESALL  
 4097  
 18DF- 20 88 81 4098 CRLF.ALL JSR SAVER  
 18E2- AE 2A 15 4099 LDX HARD+2  
 18E5- F0 08 4100 BEQ CON.CR ;CONSOLE ECHO ONLY  
 18E7- 20 12 02 4101 JSR PCRLF.VEC  
 18EA- AE 2B 15 4102 LDX HARD+3 ;IN NOT 0  
 18ED- D0 03 4103 BNE CRLF.END ;THEN NO CONSOLE ECHO  
 18EF- 20 OC 02 4104 CON.CR JSR TCRLF.VEC  
 18F2- 4C C4 81 4105 CRLF.END JMP RESALL  
 4106  
 4107 IFE SYM-1  
 4108  
 18F5- 20 54 19 4109 PCRLF JSR TTYOPEN  
 18F8- 20 OC 02 4110 JSR TCRLF.VEC  
 18FB- 4C 75 19 4111 JMP TTYCLOSE  
 4112 \*\*\*  
 4113  
 18FE- 20 88 81 4114 PRTBYT JSR SAVER  
 1901- 48 4115 PHA  
 1902- 4A 4116 LSR A  
 1903- 4A 4117 LSR A  
 1904- 4A 4118 LSR A  
 1905- 4A 4119 LSR A  
 1906- 20 10 19 4120 JSR HEXTA  
 1909- 68 4121 PLA  
 190A- 20 10 19 4122 JSR HEXTA  
 190D- 4C C4 81 4123 JMP RESALL  
 4124  
 1910- 29 OF 4125 HEXTA AND #\$0F  
 1912- C9 OA 4126 CMP #\$0A  
 1914- 18 4127 CLC  
 1915- 30 02 4128 BMI HEXTA1  
 1917- 69 07 4129 ADC #\$07  
 1919- 69 30 4130 HEXTA1 ADC #\$30  
 191B- 4C BA 18 4131 JMP OUT.ALL  
 4132  
 4133 IFE SYM-1  
 4134  
 4135 ;\*\* SYM AUTOMATIC CASSETTE MOTOR CONTROL  
 4136 ;\*\* 0 IS THE STANDARD DRIVE  
 4137 ;\*\* 1 IS THE AUX DRIVE CONTROLLED BY  
 4138 ;\*\* BIT PB7 OF VIA #1  
 4139  
 4140 ;\*\* TURN OFF MOTOR 0  
 4141  
 191E- AD OC A0 4142 TOFFO LDA VIAPCR  
 1921- 29 DF 4143 AND #\$DF  
 1923- 8D OC A0 4144 STA VIAPCR  
 1926- 60 4145 RTS

4146  
 4147 ;\*\* TURN OFF MOTOR 1  
 4148  
 1927- AD 00 A0 4149 TOFF1 LDA VIAORB  
 192A- 09 80 4150 ORA #\$80  
 192C- 8D 00 A0 4151 STA VIAORB  
 192F- 60 4152 RTS  
 4153  
 4154 ;\*\* TURN ON MOTOR 0  
 4155  
 1930- AD OC A0 4156 TONO LDA VIAPCR  
 1933- 09 20 4157 ORA #\$20  
 1935- 8D OC A0 4158 STA VIAPCR  
 1938- 60 4159 RTS  
 4160  
 4161 ;\*\* TURN ON MOTOR 1  
 4162  
 1939- AD 00 A0 4163 TON1 LDA VIAORB  
 193C- 29 7F 4164 AND #\$7F  
 193E- 8D 00 A0 4165 STA VIAORB  
 1941- 60 4166 RTS  
 4167  
 4168 ;\*\* TOGGLE STATE OF MOTOR 1  
 4169  
 1942- AD 00 A0 4170 TOG1 LDA VIAORB  
 1945- 49 80 4171 EOR #\$80  
 1947- 8D 00 A0 4172 STA VIAORB  
 194A- 60 4173 RTS  
 4174  
 4175 ;\*\* TOGGLE STATE OF MOTOR 0  
 4176  
 194B- AD OC A0 4177 TOGO LDA VIAPCR  
 194E- 49 20 4178 EOR #\$20  
 1950- 8D OC A0 4179 STA VIAPCR  
 1953- 60 4180 RTS  
 4181  
 4182 ; TTY OUT SUBROUTINE  
 4183  
 1954- A9 20 4184 TTYOPEN LDA #TTYO  
 1956- 8D 54 A6 4185 STA TOUTFL  
 1959- AD 42 02 4186 LDA PBAUD  
 195C- 8D 51 A6 4187 STA SDBYT  
 195F- 60 4188 RTS  
 1960- 48 4189 TTYOUT PHA  
 1961- 20 54 19 4190 JSR TTYOPEN  
 1964- AD 00 A0 4191 BUSY LDA VIAORB ;CHECK IF PRINTER BUSY  
 1967- 29 01 4192 AND #\$01 ;DTR SIGNAL ON PBO  
 1969- F0 F9 4193 BEQ BUSY ;WHILE WAITING  
 196B- 68 4194 PLA  
 196C- 48 4195 PHA  
 196D- 20 09 02 4196 JSR TOUT.VEC  
 1970- 20 75 19 4197 JSR TTYCLOSE  
 1973- 68 4198 PLA  
 1974- 60 4199 RTS  
 1975- A9 90 4200 TTYCLOSE LDA #CRTI+CRTO  
 1977- 8D 54 A6 4201 STA TOUTFL  
 197A- AD 41 02 4202 LDA TBAUD  
 197D- 8D 51 A6 4203 STA SDBYT

1980- 60	4204	RTS
	4205	***
	4206	
	4207 ;	XKEY READ ONE KEY TO STACK
	4208	
1981- 20 AF 18	4209 XKEY	JSR INTCHR
1984- 4C A2 06	4210	JMP PUSHOA
	4211	
	4212 ;	XQTER LEAVE BOOLEAN 1 IF TERM BREAK
	4213	
1987- 20 1B 02	4214 XQTER	JSR BREAK.VEC
198A- B0 02	4215	BCS BBREAK
198C- 90 07	4216	BCC BBREAK1
198E- 20 AF 18	4217 BBREAK	JSR INTCHR
1991- C9 20	4218	CMP #\$20
1993- D0 05	4219	BNE CTROLQ
1995- A9 00	4220 BBREAK1	LDA #\$00
1997- 4C A2 06	4221	JMP PUSHOA
199A- C9 0D	4222 CTROLQ	CMP #\$0D
199C- D0 F0	4223	BNE BBREAK
199E- A9 01	4224	LDA #\$01
19A0- 4C A2 06	4225	JMP PUSHOA
	4226	
	4227 ;	CRLF TO TERMINAL AND PRINTER
	4228	
19A3- 20 DF 18	4229 XCR	JSR CRLF.ALL
19A6- 4C 63 02	4230	JMP NEXT
	4231	
	4232	
	4233 ;	LO
	4234	
19A9- 82 4C CF	4235	.BY \$82 'L' \$CF
19AC- 76 18	4236	.SI NSCR-\$06
19AE- E3 11	4237 LO	.SI DOCREAT
19B0- 00 60	4238	.SE DRAM
	4239	
	4240 ;	HI
	4241	
19B2- 82 48 C9	4242	.BY \$82 'H' \$C9
19B5- A9 19	4243	.SI LO-\$05
19B7- E3 11	4244 HI	.SI DOCREAT
19B9- 00 80	4245	.SE DRAM+\$2000
	4246	
	4247 ;	TRW
	4248	
19BB- 83 54 52	4249	.BY \$83 'TR' \$D7
19BE- D7		
19BF- B2 19	4250	.SI HI-\$05
19C1- FC 08	4251 TRW	.SI DOCOL
19C3- 00 07	4252	.SI TOR
19C5- 5E 08	4253	.SI DUP
19C7- 03 0A	4254	.SI BSCR
19C9- C2 0B	4255	.SI LESS
19CB- 9B 03	4256	.SI ZBRAN
19CD- 13 00	4257	.SE TRW1--
19CF- 12 07	4258	.SI RFROM
19D1- 49 02	4259	.SI LIT
19D3- FF 7F	4260	.SE \$FFFF

19D5- AB 16	4261	.SI PREV
19D7- 9D 08	4262	.SI AT
19D9- C1 08	4263	.SI STORE
19DB- 8F 02	4264	.SI CLIT
19DD- 06	4265	.BY \$06
19DE- 24 11	4266	.SI ERROR
19E0- 03 0A	4267 TRW1	.SI BSCR
19E2- 3A 0B	4268	.SI SUB
19E4- E0 09	4269	.SI BBUF
19E6- 22 16	4270	.SI STAR
19E8- AE 19	4271	.SI LO
19EA- 9D 08	4272	.SI AT
19EC- 90 07	4273	.SI PLUS
19EE- B7 19	4274	.SI HI
19FO- 9D 08	4275	.SI AT
19F2- E0 09	4276	.SI BBUF
19F4- 3A 0B	4277	.SI SUB
19F6- 2C 08	4278	.SI OVER
19F8- B1 0B	4279	.SI ULESS
19FA- 9B 03	4280	.SI ZBRAN
19FC- 13 00	4281	.SE TRW2--
19FE- 12 07	4282	.SI RFROM
1A00- 49 02	4283	.SI LIT
1A02- FF 7F	4284	.SE \$FFFF
1A04- AB 16	4285	.SI PREV
1A06- 9D 08	4286	.SI AT
1A08- C1 08	4287	.SI STORE
1AOA- 8F 02	4288	.SI CLIT
1AOE- 06	4289	.BY \$06
1AOD- 24 11	4290	.SI ERROR
1AOF- 12 07	4291 TRW2	.SI RFROM
1A11- 9B 03	4292	.SI ZBRAN
1A13- 04 00	4293	.SE TRW3--
1A15- 46 08	4294	.SI SWAP
1A17- E0 09	4295 TRW3	.SI BBUF
1A19- B5 05	4296	.SI CMOVE
1A1B- D2 06	4297	.SI SEMIS
	4298	.CT 1FTH45
4299 ;		
4300 ;*****		
4301 ;** SK-FORTH (79-STANDARD)		**
4302 ;** BY JACK W. BROWN		**
4303 ;** COPYRIGHT (C) 1980		**
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4305 ;** (ALL RIGHTS RESERVED)		**
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4307 ;** NEW WESTMINSTER, B. C.		**
4308 ;** V3L 4Y7, CANADA		**
4309 ;*****		
4310 ;		
4311 ;		
4312 ;*****		
4313 ;** SYM/KIM-FORTH PART 8		**
4314 ;** DISK FILE FTH45		**
4315 ;*****		

4316  
 4317  
 4318 ; SET1  
 4319  
 1A1D- 84 53 45 4320 .BY \$84 'SET' \$B1  
 1A20- 54 B1  
 1A22- BB 19 4321 .SI TRW-\$06  
 1A24- FC 08 4322 SET1 .SI DOCOL  
 1A26- 9B 1B 4323 .SI DISK>  
 1A28- 9D 08 4324 .SI AT  
 1A2A- 9B 03 4325 .SI ZBRAN  
 1A2C- 12 00 4326 .SE SET11--  
 1A2E- 88 09 4327 .SI ZERO  
 1A30- 49 02 4328 .SI LIT  
 1A32- 15 72 4329 .SE DKNUM>  
 1A34- D9 08 4330 .SI CSTOR  
 1A36- 88 09 4331 .SI ZERO  
 1A38- 49 02 4332 .SI LIT  
 1A3A- 14 72 4333 .SE CONNUM>  
 1A3C- D9 08 4334 .SI CSTOR  
 1A3E- D2 06 4335 SET11 .SI SEMIS  
 4336  
 4337 ; SET2  
 4338  
 1A40- 84 53 45 4339 .BY \$84 'SET' \$B2  
 1A43- 54 B2  
 1A45- 1D 1A 4340 .SI SET1-\$07  
 1A47- FC 08 4341 SET2 .SI DOCOL  
 1A49- 9B 1B 4342 .SI DISK>  
 1A4B- 9D 08 4343 .SI AT  
 1A4D- 9B 03 4344 .SI ZBRAN  
 1A4F- 12 00 4345 .SE SET22--  
 1A51- 98 09 4346 .SI TWO  
 1A53- 49 02 4347 .SI LIT  
 1A55- 15 72 4348 .SE DKNUM>  
 1A57- D9 08 4349 .SI CSTOR  
 1A59- 88 09 4350 .SI ZERO  
 1A5B- 49 02 4351 .SI LIT  
 1A5D- 14 72 4352 .SE CONNUM>  
 1A5F- D9 08 4353 .SI CSTOR  
 1A61- D2 06 4354 SET22 .SI SEMIS  
 4355  
 4356 ; (MDISK)  
 4357  
 1A63- 87 28 4D 4358 .BY \$87 '(MDISK' \$A9  
 1A66- 44 49 53  
 1A69- 4B A9  
 1A6B- 40 1A 4359 .SI SET2-\$07  
 1A6D- 6F 1A 4360 PMDISK .SI +=2  
 1A6F- 86 B5 4361 STX \*XSAVE  
 1A71- 20 27 02 4362 JSR DISK.VEC  
 1A74- A6 B5 4363 LDX \*XSAVE  
 1A76- 4C 63 02 4364 JMP NEXT  
 4365  
 4366 ; MDISK  
 4367  
 1A79- 85 4D 44 4368 .BY \$85 'MDIS' \$CB  
 1A7C- 49 53 CB

1A7F- 63 1A 4369 .SI PMDISK-\$0A  
 1A81- FC 08 4370 MDISK .SI DOCOL  
 1A83- 6D 1A 4371 .SI PMDISK  
 1A85- 49 02 4372 .SI LIT  
 1A87- 1B 72 4373 .SE ERCODE>  
 1A89- B2 08 4374 .SI CAT  
 1A8B- 8F 02 4375 .SI CLIT  
 1A8D- FF 4376 .BY \$FF  
 1A8E- C2 0B 4377 .SI LESS  
 1A90- 9B 03 4378 .SI ZBRAN  
 1A92- 13 00 4379 .SE MDISK1--  
 1A94- C2 OD 4380 .SI HEX  
 1A96- 49 02 4381 .SI LIT  
 1A98- 1B 72 4382 .SE ERCODE>  
 1A9A- B2 08 4383 .SI CAT  
 1A9C- 18 20 4384 .SI DOT  
 1A9E- C9 1A 4385 .SI OFF  
 1AA0- 8F 02 4386 .SI CLIT  
 1AA2- 08 4387 .BY \$08  
 1AA3- 24 11 4388 .SI ERROR  
 1AA5- D2 06 4389 MDISK1 .SI SEMIS  
 4390  
 4391 ; ON  
 4392  
 1AA7- 82 4F CE 4393 .BY \$82 '0' \$CE  
 1AAA- 79 1A 4394 .SI MDISK-\$08  
 1AAC- FC 08 4395 ON .SI DOCOL  
 1AAE- 9B 1B 4396 .SI DISK>  
 1AB0- 9D 08 4397 .SI AT  
 1AB2- 9B 03 4398 .SI ZBRAN  
 1AB4- OD 00 4399 .SE ON1--  
 1AB6- 8F 02 4400 .SI CLIT  
 1AB8- 30 4401 .BY \$30  
 1AB9- 49 02 4402 .SI LIT  
 1ABB- 18 72 4403 .SE COMAND>  
 1ABD- D9 08 4404 .SI CSTOR  
 1ABF- 6D 1A 4405 .SI PMDISK  
 1AC1- D2 06 4406 ON1 .SI SEMIS  
 4407  
 4408 ; OFF  
 4409  
 1AC3- 83 4F 46 4410 .BY \$83 'OF' \$C6  
 1AC6- C6  
 1AC7- A7 1A 4411 .SI ON-\$05  
 1AC9- FC 08 4412 OFF .SI DOCOL  
 1ACB- 9B 1B 4413 .SI DISK>  
 1ACD- 9D 08 4414 .SI AT  
 1ACF- 9B 03 4415 .SI ZBRAN  
 1AD1- OD 00 4416 .SE OFF1--  
 1AD3- 8F 02 4417 .SI CLIT  
 1AD5- 20 4418 .BY \$20  
 1AD6- 49 02 4419 .SI LIT  
 1AD8- 18 72 4420 .SE COMAND>  
 1ADA- D9 08 4421 .SI CSTOR  
 1ADC- 6D 1A 4422 .SI PMDISK  
 1ADE- D2 06 4423 OFF1 .SI SEMIS  
 4424  
 4425 ; (SET)

1AE0-	85 28 53	4426	
1AE3-	45 54 A9	4427	.BY \$85 '(SET' \$A9
1AE6-	C3 1A	4428	.SI OFF-\$06
1AE8-	FC 08	4429 PSET	.SI DOCOL
1AEA-	53 07	4430	.SI ZEQU
1AEC-	49 02	4431	.SI LIT
1AEE-	18 72	4432	.SE COMAND>
1AF0-	D9 08	4433	.SI CSTOR
1AF2-	49 02	4434	.SI LIT
1AF4-	10 00	4435	.SE \$0010
1AF6-	31 16	4436	.SI SLMOD
1AF8-	49 02	4437	.SI LIT
1AFA-	16 72	4438	.SE MTRKAD>
1AFC-	D9 08	4439	.SI CSTOR
1AFE-	E1 0A	4440	.SI ONEP
1B00-	49 02	4441	.SI LIT
1B02-	17 72	4442	.SE MSECAD>
1B04-	D9 08	4443	.SI CSTOR
1B06-	5E 08	4444	.SI DUP
1B08-	E0 09	4445	.SI BBUF
1B0A-	54 0B	4446	.SI ONESB
1B0C-	90 07	4447	.SI PLUS
1B0E-	49 02	4448	.SI LIT
1B10-	12 72	4449	.SE FLTOP>
1B12-	C1 08	4450	.SI STORE
1B14-	49 02	4451	.SI LIT
1B16-	10 72	4452	.SE FLBOT>
1B18-	C1 08	4453	.SI STORE
1B1A-	81 1A	4454	.SI MDISK
1B1C-	C9 1A	4455	.SI OFF
1B1E-	D2 06	4456	.SI SEMIS
		4457	
		4458 ;	DRW
		4459	
1B20-	83 44 52	4460	.BY \$83 'DR' \$D7
1B23-	D7		
1B24-	E0 1A	4461	.SI PSET-\$08
1B26-	FC 08	4462 DRW	.SI DOCOL
1B28-	00 07	4463	.SI TOR
1B2A-	EC 09	4464	.SI SBLK
1B2C-	22 16	4465	.SI STAR
1B2E-	5E 08	4466	.SI DUP
1B30-	8F 02	4467	.SI CLIT
1B32-	08	4468	.BY \$08
1B33-	C2 0B	4469	.SI LESS
1B35-	9B 03	4470	.SI ZBRAN
1B37-	13 00	4471	.SE DRW1==
1B39-	12 07	4472	.SI RFROM
1B3B-	49 02	4473	.SI LIT
1B3D-	FF 7F	4474	.SE \$7FFF
1B3F-	AB 16	4475	.SI PREV
1B41-	9D 08	4476	.SI AT
1B43-	C1 08	4477	.SI STORE
1B45-	8F 02	4478	.SI CLIT
1B47-	06	4479	.BY \$06
1B48-	24 11	4480	.SI ERROR
1B4A-	8F 02	4481 DRW1	.SI CLIT

1B4C-	08	4482	.BY \$08
1B4D-	3A 0B	4483	.SI SUB
1B4F-	5E 08	4484	.SI DUP
1B51-	49 02	4485	.SI LIT
1B53-	30 02	4486	.SE \$0230
1B55-	C2 0B	4487	.SI LESS
1B57-	9B 03	4488	.SI ZBRAN
1B59-	0A 00	4489	.SE DRW2==
1B5B-	12 07	4490	.SI RFROM
1B5D-	47 1A	4491	.SI SET2
1B5F-	E8 1A	4492	.SI PSET
1B61-	1B 09	4493	.SI EXIT
1B63-	49 02	4494 DRW2	.SI LIT
1B65-	30 02	4495	.SE \$0230
1B67-	98 09	4496	.SI TWO
1B69-	41 16	4497	.SI SLASH
1B6B-	3A 0B	4498	.SI SUB
1B6D-	5E 08	4499	.SI DUP
1B6F-	49 02	4500	.SI LIT
1B71-	30 02	4501	.SE \$0230
1B73-	C2 0B	4502	.SI LESS
1B75-	9B 03	4503	.SI ZBRAN
1B77-	0A 00	4504	.SE DRW3==
1B79-	12 07	4505	.SI RFROM
1B7B-	24 1A	4506	.SI SET1
1B7D-	E8 1A	4507	.SI PSET
1B7F-	1B 09	4508	.SI EXIT
1B81-	12 07	4509 DRW3	.SI RFROM
1B83-	49 02	4510	.SI LIT
1B85-	FF 7F	4511	.SE \$7FFF
1B87-	AB 16	4512	.SI PREV
1B89-	9D 08	4513	.SI AT
1B8B-	C1 08	4514	.SI STORE
1B8D-	8F 02	4515	.SI CLIT
1B8F-	06	4516	.BY \$06
1B90-	24 11	4517	.SI ERROR
1B92-	D2 06	4518	.SI SEMIS
		4519 ;	
		4520 ;	DISK - SYSTEM VARIABLE SET FOR DISK
		4521 ;	
1B94-	84 44 49	4522	.BY \$84 'DIS' \$CB
1B97-	53 CB		
1B99-	20 1B	4523	.SI DRW-\$06
1B9B-	E3 11	4524 DISK>	.SI DOCREAT
1B9D-	00 00	4525	.SE DISK
		4526 ;	
		4527 ;	R/W - STANDARD FORTH R/W LINKAGE
		4528 ;	
1B9F-	83 52 2F	4529	.BY \$83 'R/' \$D7
1BA2-	D7		
1BA3-	94 1B	4530	.SI DISK>-\$07
1BA5-	FC 08	4531 RSLW	.SI DOCOL
1BA7-	9B 1B	4532	.SI DISK>
1BA9-	9D 08	4533	.SI AT
1BAB-	9B 03	4534	.SI ZBRAN
1BAD-	08 00	4535	.SE RSLW1==
1BAF-	26 1B	4536	.SI DRW
1BB1-	7C 03	4537	.SI BRAN

1BB3- 04 00	4538	.SE RSLW2=-
1BB5- C1 19	4539	RSLW1 .SI TRW
1BB7- D2 06	4540	RSLW2 .SI SEMIS
	4541 ;	
	4542	
	4543 ;	TICK
	4544	
1BB9- C1 A7	4545	.BY \$C1 \$A7
1BBB- 9F 1B	4546	.SI RSLW-\$06
1BBD- FC 08	4547	TICK .SI DOCOL
1BFF- EC 10	4548	.SI DFIND
1BC1- 53 07	4549	.SI ZEQU
1BC3- 88 09	4550	.SI ZERO
1BC5- EB OC	4551	.SI QERR
1BC7- 3D 08	4552	.SI DROP
1BC9- 17 12	4553	.SI LITER
1BCB- D2 06	4554	.SI SEMIS
	4555	
	4556 ;	FORGET
	4557	
1BCD- 86 46 4F	4558	.BY \$86 'FORGE' \$D4
1BD0- 52 47 45		
1BD3- D4		
1BD4- B9 1B	4559	.SI TICK-\$04
1BD6- FC 08	4560	FORG .SI DOCOL
1BD8- BD 1B	4561	.SI TICK
1BDA- AF OC	4562	.SI NFA
1BDC- 5E 08	4563	.SI DUP
1BDE- 44 OA	4564	.SI FENCE
1BE0- 9D 08	4565	.SI AT
1BE2- B1 OB	4566	.SI ULESS
1BE4- 8F 02	4567	.SI CLIT
1BE6- 15	4568	.BY \$15
1BE7- EB OC	4569	.SI QERR
1BE9- 00 07	4570	.SI TOR
1BEB- 5A OA	4571	.SI VOCL
1BED- 9D 08	4572	.SI AT
1BEF- 24 07	4573	FORG1 .SI R
1BF1- 2C 08	4574	.SI OVER
1BF3- B1 OB	4575	.SI ULESS
1BF5- 9B 03	4576	.SI ZBRAN
1BF7- 12 00	4577	.SE FORG2=-
1BF9- 3E 13	4578	.SI FORTH
1BFB- 54 13	4579	.SI DEFIN
1BFD- 9D 08	4580	.SI AT
1BFF- 5E 08	4581	.SI DUP
1C01- 5A OA	4582	.SI VOCL
1C03- C1 08	4583	.SI STORE
1C05- 7C 03	4584	.SI BRAN
1C07- E8 FF	4585	.SE FORG1=-
1C09- 5E 08	4586	FORG2 .SI DUP
1COB- 8F 02	4587	.SI CLIT
1COD- 04	4588	.BY \$04
1COE- 3A OB	4589	.SI SUB
1C10- C4 OC	4590	FORG3 .SI PFA
1C12- 94 OC	4591	.SI LFA
1C14- 9D 08	4592	.SI AT
1C16- 5E 08	4593	.SI DUP

1C18- 24 07	4594	.SI R
1C1A- B1 OB	4595	.SI ULESS
1C1C- 9B 03	4596	.SI ZBRAN
1C1E- F2 FF	4597	.SE FORG3=-
1C20- 2C 08	4598	.SI OVER
1C22- 98 09	4599	.SI TWO
1C24- 3A OB	4600	.SI SUB
1C26- C1 08	4601	.SI STORE
1C28- 9D 08	4602	.SI AT
1C2A- 49 OC	4603	.SI DDUP
1C2C- 53 07	4604	.SI ZEQU
1C2E- 9B 03	4605	.SI ZBRAN
1C30- D9 FF	4606	.SE FORG2=-
1C32- 12 07	4607	.SI RFROM
1C34- 4C 0A	4608	.SI DP
1C36- C1 08	4609	.SI STORE
1C38- D2 06	4610	.SI SEMIS
	4611	
	4612 ;	BACK
	4613	
1C3A- 84 42 41	4614	.BY \$84 'BAC' \$CB
1C3D- 43 CB		
1C3F- CD 1B	4615	.SI FORG-\$09
1C41- FC 08	4616	BACK .SI DOCOL
1C43- FD 0A	4617	.SI HERE
1C45- 3A OB	4618	.SI SUB
1C47- 19 OB	4619	.SI COMMA
1C49- D2 06	4620	.SI SEMIS
	4621	
	4622 ;	BEGIN
	4623	
1C4B- C5 42 45	4624	.BY \$C5 'BEGI' \$CE
1C4E- 47 49 CE		
1C51- 3A 1C	4625	.SI BACK-\$07
1C53- FC 08	4626	BEGIN .SI DOCOL
1C55- 05 0D	4627	.SI QCOMP
1C57- FD 0A	4628	.SI HERE
1C59- 90 09	4629	.SI ONE
1C5B- D2 06	4630	.SI SEMIS
	4631	
	4632 ;	THEN
	4633	
1C5D- C4 54 48	4634	.BY \$C4 'THE' \$CE
1C60- 45 CE		
1C62- 4B 1C	4635	.SI BEGIN-\$08
1C64- FC 08	4636	THEN .SI DOCOL
1C66- 05 0D	4637	.SI QCOMP
1C68- 98 09	4638	.SI TWO
1C6A- 32 0D	4639	.SI QPAIR
1C6C- FD 0A	4640	.SI HERE
1C6E- 2C 08	4641	.SI OVER
1C70- 3A OB	4642	.SI SUB
1C72- 46 08	4643	.SI SWAP
1C74- C1 08	4644	.SI STORE
1C76- D2 06	4645	.SI SEMIS
	4646	
	4647 ;	DO
	4648	

1C78- C2 44 CF 4649 .BY \$C2 'D' \$CF  
 1C7B- 5D 1C 4650 .SI THEN-\$07  
 1C7D- FC 08 4651 DO .SI DOCOL  
 1C7F- 79 OD 4652 .SI COMP  
 1C81- 23 04 4653 .SI PDO  
 1C83- FD 0A 4654 .SI HERE  
 1C85- A0 09 4655 .SI THREE  
 1C87- D2 06 4656 .SI SEMIS  
 4657  
 4658 ; LOOP  
 4659

1C89- C4 4C 4F 4660 .BY \$C4 'LOO' \$DO

1C8C- 4F DO  
 1C8E- 78 1C 4661 .SI DO-\$05  
 1C90- FC 08 4662 LOOP .SI DOCOL  
 1C92- A0 09 4663 .SI THREE  
 1C94- 32 OD 4664 .SI QPAIR  
 1C96- 79 OD 4665 .SI COMP  
 1C98- BC 03 4666 .SI PLOOP  
 1C9A- 41 1C 4667 .SI BACK  
 1C9C- D2 06 4668 .SI SEMIS  
 4669 ;  
 4670 .CT FTH50

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 4678 ;\*\* NEW WESTMINSTER, B. C. \*\*  
 4679 ;\*\* V3L 4Y7, CANADA \*\*  
 4681 ;\*\*\*\*\*SYM/KIM-FORTH PART 9\*\*\*\*\*  
 4682 ;  
 4683 ;  
 4684 ;\*\*\*\*\*DISK FILE FTH50\*\*\*\*\*  
 4685 ;\*\* SYM/KIM-FORTH PART 9 \*\*  
 4686 ;\*\* DISK FILE FTH50 \*\*  
 4687 ;\*\*\*\*\*

4688  
 4689 ; +LOOP  
 4690

1C9E- C5 2B 4C 4691 .BY \$C5 '+LOO' \$DO  
 1CA1- 4F 4F DO  
 1CA4- 89 1C 4692 .SI LOOP-\$07  
 1CA6- FC 08 4693 PLUSLP .SI DOCOL  
 1CA8- A0 09 4694 .SI THREE  
 1CAA- 32 OD 4695 .SI QPAIR  
 1CAC- 79 OD 4696 .SI COMP  
 1CAE- EC 03 4697 .SI PPLOOP  
 1CBO- 41 1C 4698 .SI BACK  
 1CB2- D2 06 4699 .SI SEMIS  
 4700  
 4701 ; UNTIL

4702  
 1CB4- C5 55 4E 4703 .BY \$C5 'UNTI' \$CC  
 1CB7- 54 49 CC  
 1CBA- 9E 1C 4704 .SI PLUSLP-\$08  
 1CBC- FC 08 4705 UNTIL .SI DOCOL  
 1CBE- 90 09 4706 .SI ONE  
 1CC0- 32 OD 4707 .SI QPAIR  
 1CC2- 79 OD 4708 .SI COMP  
 1CC4- 9B 03 4709 .SI ZBRAN  
 1CC6- 41 1C 4710 .SI BACK  
 1CC8- D2 06 4711 .SI SEMIS  
 4712  
 4713 ; AGAIN

4714  
 1CCA- C5 41 47 4715 .BY \$C5 'AGAI' \$CE  
 1CCD- 41 49 CE  
 1CD0- B4 1C 4716 .SI UNTIL-\$08  
 1CD2- FC 08 4717 AGAIN .SI DOCOL  
 1CD4- 90 09 4718 .SI ONE  
 1CD6- 32 OD 4719 .SI QPAIR  
 1CD8- 79 OD 4720 .SI COMP  
 1CDA- 7C 03 4721 .SI BRAN  
 1CDC- 41 1C 4722 .SI BACK  
 1CDE- D2 06 4723 .SI SEMIS  
 4724  
 4725 ; REPEAT

4726  
 1CE0- C6 52 45 4727 .BY \$C6 'REPEA' \$D4  
 1CE3- 50 45 41

1CE6- D4  
 1CE7- CA 1C 4728 .SI AGAIN-\$08  
 1CE9- FC 08 4729 REPEAT .SI DOCOL  
 1CEB- 00 07 4730 .SI TOR  
 1CED- 00 07 4731 .SI TOR  
 1CEF- D2 1C 4732 .SI AGAIN  
 1CF1- 12 07 4733 .SI RFROM  
 1CF3- 12 07 4734 .SI RFROM  
 1CF5- 61 0B 4735 .SI TWOSB  
 1CF7- 64 1C 4736 .SI THEN  
 1CF9- D2 06 4737 .SI SEMIS  
 4738  
 4739 ; IF

4740  
 1CFB- C2 49 C6 4741 .BY \$C2 'I' \$C6

1CFE- E0 1C 4742 .SI REPEAT-\$09

1D00- FC 08 4743 IF .SI DOCOL

1D02- 79 OD 4744 .SI COMP

1D04- 9B 03 4745 .SI ZBRAN

1D06- FD 0A 4746 .SI HERE

1D08- 88 09 4747 .SI ZERO

1DOA- 19 0B 4748 .SI COMMA

1DOC- 98 09 4749 .SI TWO

1DOE- D2 06 4750 .SI SEMIS

4751  
 4752 ; ELSE

4753  
 1D10- C4 45 4C 4754 .BY \$C4 'ELS' \$C5

1D13- 53 C5

1D15- FB 1C 4755 .SI IF-\$05  
 1D17- FC 08 4756 ELSE .SI DOCOL  
 1D19- 98 09 4757 .SI TWO  
 1D1B- 32 0D 4758 .SI QPAIR  
 1D1D- 79 0D 4759 .SI COMP  
 1D1F- 7C 03 4760 .SI BRAN  
 1D21- FD 0A 4761 .SI HERE  
 1D23- 88 09 4762 .SI ZERO  
 1D25- 19 0B 4763 .SI COMMA  
 1D27- 46 08 4764 .SI SWAP  
 1D29- 98 09 4765 .SI TWO  
 1D2B- 64 1C 4766 .SI THEN  
 1D2D- 98 09 4767 .SI TWO  
 1D2F- D2 06 4768 .SI SEMIS  
 4769  
 4770 ; WHILE  
 4771  
 1D31- C5 57 48 4772 .BY \$C5 'WHIL' \$C5  
 1D34- 49 4C C5  
 1D37- 10 1D 4773 .SI ELSE-\$07  
 1D39- FC 08 4774 WHILE .SI DOCOL  
 1D3B- 00 1D 4775 .SI IF  
 1D3D- EE 0A 4776 .SI TWOP  
 1D3F- D2 06 4777 .SI SEMIS  
 4778  
 4779 ; ?STK  
 4780  
 1D41- 84 3F 53 4781 .BY \$84 '?ST' \$CB  
 1D44- 54 CB  
 1D46- 31 1D 4782 .SI WHILE-\$08  
 1D48- FC 08 4783 QSTK .SI DOCOL  
 1D4A- 5E 08 4784 .SI DUP  
 1D4C- 5E 08 4785 .SI DUP  
 1D4E- 53 07 4786 .SI ZEQU  
 1D50- 46 08 4787 .SI SWAP  
 1D52- 5E 08 4788 .SI DUP  
 1D54- 90 07 4789 .SI PLUS  
 1D56- 9F 06 4790 .SI SPAT  
 1D58- 90 07 4791 .SI PLUS  
 1D5A- 49 02 4792 .SI LIT  
 1D5C- 98 00 4793 .SE TOS-6  
 1D5E- 18 0C 4794 .SI GREAT  
 1D60- 73 06 4795 .SI OR  
 1D62- D2 06 4796 .SI SEMIS  
 4797  
 4798 ; ROLL  
 4799  
 1D64- 84 52 4F 4800 .BY \$84 'ROL' \$CC  
 1D67- 4C CC  
 1D69- 41 1D 4801 .SI QSTK-\$07  
 1D6B- FC 08 4802 ROLL .SI DOCOL  
 1D6D- 48 1D 4803 .SI QSTK  
 1D6F- 9B 03 4804 .SI ZBRAN  
 1D71- 0C 00 4805 .SE ROLL1-=  
 1D73- 3D 08 4806 .SI DROP  
 1D75- 90 09 4807 .SI ONE  
 1D77- 24 11 4808 .SI ERROR  
 1D79- 7C 03 4809 .SI BRAN

1D7B- 04 00 4810 .SE ROLL2-=  
 1D7D- A1 04 4811 ROLL1 .SI PROLL  
 1D7F- D2 06 4812 ROLL2 .SI SEMIS  
 4813  
 4814 ; PICK  
 4815  
 1D81- 84 50 49 4816 .BY \$84 'PIC' \$CB  
 1D84- 43 CB  
 1D86- 64 1D 4817 .SI ROLL-\$07  
 1D88- FC 08 4818 PICK .SI DOCOL  
 1D8A- 48 1D 4819 .SI QSTK  
 1D8C- 9B 03 4820 .SI ZBRAN  
 1D8E- OC 00 4821 .SE PICK1-=  
 1D90- 3D 08 4822 .SI DROP  
 1D92- 90 09 4823 .SI ONE  
 1D94- 24 11 4824 .SI ERROR  
 1D96- 7C 03 4825 .SI BRAN  
 1D98- 0A 00 4826 .SE PICK2-=  
 1D9A- 6E 0B 4827 PICK1 .SI TWOSTAR  
 1D9C- 9F 06 4828 .SI SPAT  
 1D9E- 90 07 4829 .SI PLUS  
 1DA0- 9D 08 4830 .SI AT  
 1DA2- D2 06 4831 PICK2 .SI SEMIS  
 4832 ;  
 4833 ; 2! DOUBLE NUMBER STORE  
 4834 ;  
 1DA4- 82 32 A1 4835 .BY \$82 '2' \$A1  
 1DA7- 81 1D 4836 .SI PICK-\$07  
 1DA9- FC 08 4837 TSTORE .SI DOCOL  
 1DAB- 46 08 4838 .SI SWAP  
 1DAD- 2C 08 4839 .SI OVER  
 1DAF- C1 08 4840 .SI STORE  
 1DB1- EE 0A 4841 .SI TWOP  
 1DB3- C1 08 4842 .SI STORE  
 1DB5- D2 06 4843 .SI SEMIS  
 4844 ;  
 4845 ; 2@ DOUBLE NUMBER FETCH  
 4846 ;  
 1DB7- 82 32 CO 4847 .BY \$82 '2' \$C0  
 1DBA- A4 1D 4848 .SI TSTORE-\$05  
 1DBC- FC 08 4849 TAT .SI DOCOL  
 1DBE- 5E 08 4850 .SI DUP  
 1DC0- EE 0A 4851 .SI TWOP  
 1DC2- 9D 08 4852 .SI AT  
 1DC4- 46 08 4853 .SI SWAP  
 1DC6- 9D 08 4854 .SI AT  
 1DC8- D2 06 4855 .SI SEMIS  
 4856 ;  
 4857 ; 2CONSTANT DOUBLE NUMBER CONSTANT  
 4858 ;  
 1DCA- 89 32 43 4859 .BY \$89 '2CONSTAN' \$D4  
 1DCD- 4F 4E 53  
 1DD0- 54 41 4E  
 1DD3- D4  
 1DD4- B7 1D 4860 .SI TAT-\$05  
 1DD6- FC 08 4861 TCON .SI DOCOL  
 1DD8- 8D 11 4862 .SI CREAT  
 1DDA- 19 0B 4863 .SI COMMA

IDDC-	19	OB	4864	.SI COMMA
IDDE-	EC	OD	4865	.SI PSCOD
IDE0-	20	2B	OE	4866 JSR DODOES
IDE3-	BC	1D	4867	.SI TAT
IDE5-	D2	06	4868	.SI SEMIS
	4869	;		
	4870	;	2DROP	DOUBLE NUMBER DROP
	4871	;		
IDE7-	85	32	44	4872 .BY \$85 '2DRO' \$DO
IDEA-	52	4F	DO	
IDED-	CA	1D	4873	.SI TCON-\$OC
IDEF-	FC	08	4874	TDROP .SI DOCOL
IDF1-	3D	08	4875	.SI DROP
IDF3-	3D	08	4876	.SI DROP
IDF5-	D2	06	4877	.SI SEMIS
	4878	;		
	4879	;	2DUP	DOUBLE DUPLICATE
	4880	;		
IDF7-	84	32	44	4881 .BY \$84 '2DU' \$DO
IDFA-	55	DO		
IDFC-	E7	1D	4882	.SI TDROP-\$08
IDFE-	FC	08	4883	TDUP .SI DOCOL
IE00-	2C	08	4884	.SI OVER
IE02-	2C	08	4885	.SI OVER
IE04-	D2	06	4886	.SI SEMIS
	4887	;		
	4888	;	2OVER	DOUBLE OVER
	4889	;		
IE06-	85	32	4F	4890 .BY \$85 '2OVE' \$D2
IE09-	56	45	D2	
IE0C-	F7	1D	4891	.SI TDUP-\$07
IE0E-	FC	08	4892	TOVER .SI DOCOL
IE10-	8F	02	4893	.SI CLIT
IE12-	04		4894	.BY \$04
IE13-	88	1D	4895	.SI PICK
IE15-	8F	02	4896	.SI CLIT
IE17-	04		4897	.BY \$04
IE18-	88	1D	4898	.SI PICK
IE1A-	D2	06	4899	.SI SEMIS
	4900	;		
	4901	;	2ROT	DOUBLE ROTATE
	4902	;		
IE1C-	84	32	52	4903 .BY \$84 '2RO' \$D4
IE1F-	4F	D4		
IE21-	06	1E	4904	.SI TOVER-\$08
IE23-	FC	08	4905	TROT .SI DOCOL
IE25-	8F	02	4906	.SI CLIT
IE27-	06		4907	.BY \$06
IE28-	6B	1D	4908	.SI ROLL
IE2A-	8F	02	4909	.SI CLIT
IE2C-	06		4910	.BY \$06
IE2D-	6B	1D	4911	.SI ROLL
IE2F-	D2	06	4912	.SI SEMIS
	4913	;		
	4914	;	2SWAP	DOUBLE SWAP
	4915	;		
IE31-	85	32	53	4916 .BY \$85 '2SWA' \$DO
IE34-	57	41	DO	

1E37-	1C	1E	4917	.SI TROT-\$07
1E39-	FC	08	4918	TSWAP .SI DOCOL
1E3B-	26	0C	4919	.SI ROT
1E3D-	00	07	4920	.SI TOR
1E3F-	26	0C	4921	.SI ROT
1E41-	12	07	4922	.SI RFROM
1E43-	D2	06	4923	.SI SEMIS
	4924	;		
	4925	;	D>	DOUBLE GREATER
	4926	;		
1E45-	82	44	BE	4927 .BY \$82 'D' \$BE
1E48-	31	1E	4928	.SI TSWAP-\$08
1E4A-	FC	08	4929	DGREAT .SI DOCOL
1E4C-	39	1E	4930	.SI TSWAP
1E4E-	01	0C	4931	.SI DLESS
1E50-	D2	06	4932	.SI SEMIS
	4933	;		
	4934	;	DMAX	LEAVE LARGER DOUBLE NUMBER
	4935	;		
1E52-	84	44	4D	4936 .BY \$84 'DMA' \$D8
1E55-	41	D8		
1E57-	45	1E	4937	.SI DGREAT-\$05
1E59-	FC	08	4938	DMAX .SI DOCOL
1E5B-	0E	1E	4939	.SI TOVER
1E5D-	0E	1E	4940	.SI TOVER
1E5F-	01	0C	4941	.SI DLESS
1E61-	9B	03	4942	.SI ZBRAN
1E63-	04	00	4943	.SE DMA1--
1E65-	39	1E	4944	.SI TSWAP
1E67-	EF	1D	4945	DMAX1 .SI TDROP
1E69-	D2	06	4946	.SI SEMIS
	4947	;		
	4948	;	DMIN	LEAVE SMALLER DOUBLE NUMBER
	4949	;		
1E6B-	84	44	4D	4950 .BY \$84 'DMI' \$CE
1E6E-	49	CE		
1E70-	52	1E	4951	.SI DMAX-\$07
1E72-	FC	08	4952	DMIN .SI DOCOL
1E74-	0E	1E	4953	.SI TOVER
1E76-	0E	1E	4954	.SI TOVER
1E78-	4A	1E	4955	.SI DGREAT
1E7A-	9B	03	4956	.SI ZBRAN
1E7C-	04	00	4957	.SE DMIN1--
1E7E-	39	1E	4958	.SI TSWAP
1E80-	EF	1D	4959	DMIN1 .SI TDROP
1E82-	D2	06	4960	.SI SEMIS
	4961	;		
	4962	;	2VARIABLE	DOUBLE NUMBER VARIABLE
	4963	;		
1E84-	89	32	56	4964 .BY \$89 '2VARIABL' \$C5
1E87-	41	52	49	
1E8A-	41	42	4C	
1E8D-	C5			
1E8E-	6B	1E	4965	.SI DMIN-\$07
1E90-	FC	08	4966	TVAR .SI DOCOL
1E92-	8D	11	4967	.SI CREAT
1E94-	88	09	4968	.SI ZERO
1E96-	88	09	4969	.SI ZERO

1E98-	19 OB	4970	.SI COMMA
1E9A-	19 OB	4971	.SI COMMA
1E9C-	EC OD	4972	.SI PSCOD
1E9E-	20 2B OE	4973	JSR DODES
1EA1-	D2 06	4974	.SI SEMIS
		4975 ;	
		4976 ;	
		4977 ;	DEPTH
		4978	
1EA3-	85 44 45	4979	.BY \$85 'DEPT' \$C8
1EA6-	50 54 C8		
1EA9-	84 1E	4980	.SI TVAR-\$OC
1EAB-	FC 08	4981	DEPTH
1EAD-	9F 06	4982	.SI SPAT
1EAF-	49 02	4983	.SI LIT
1EB1-	9E 00	4984	.SE TOS
1EB3-	46 08	4985	.SI SWAP
1EB5-	3A 0B	4986	.SI SUB
1EB7-	98 09	4987	.SI TWO
1EB9-	41 16	4988	.SI SLASH
1EBB-	D2 06	4989	.SI SEMIS
		4990	
		4991 ;	NOT
		4992	
1EBD-	83 4E 4F	4993	.BY \$83 'NO' \$D4
1EC0-	D4		
1EC1-	A3 1E	4994	.SI DEPTH-\$08
1EC3-	FC 08	4995	NOT
1EC5-	53 07	4996	.SI ZEQU
1EC7-	D2 06	4997	.SI SEMIS
		4998	
		4999 ;	CONVERT
		5000	
1EC9-	87 43 4F	5001	.BY \$87 'CONVER' \$D4
1ECC-	4E 56 45		
1ECF-	52 D4		
1ED1-	BD 1E	5002	.SI NOT-\$06
1ED3-	FC 08	5003	CONVERT
1ED5-	4B 10	5004	.SI PNUMB
1ED7-	D2 06	5005	.SI SEMIS
		5006	
		5007 ;	FIND
		5008	
1ED9-	84 46 49	5009	.BY \$84 'FIN' \$C4
1EDC-	4E C4		
1EDE-	C9 1E	5010	.SI CONVERT-\$0A
1EE0-	FC 08	5011	FIND
1EE2-	EC 10	5012	.SI DFIND
1EE4-	9B 03	5013	.SI ZBRAN
1EE6-	0A 00	5014	.SE FIND1=-
1EE8-	3D 08	5015	.SI DROP
1EEA-	A3 OC	5016	.SI CFA
1EEC-	7C 03	5017	.SI BRAN
1EEE-	04 00	5018	.SE FIND2=-
1EF0-	88 09	5019	FIND1
1EF2-	D2 06	5020	FIND2
		5021	
		5022 ;	MOVE

1EF4-	84 4D 4F	5023	
1EF7-	56 C5	5024	.BY \$84 'MOV' \$C5
1EF9-	D9 1E	5025	.SI FIND-\$07
1EFB-	FC 08	5026	MOVE
1EFD-	6E 0B	5027	.SI DOCOL
1EFF-	B5 05	5028	.SI TWOSTAR
1F01-	D2 06	5029	.SI CMOVE
		5030	.SI SEMIS
		5031 ;	(R-V)
		5032	
1F03-	A3 52 56	5033	.BY \$A3 'RV' \$CC
1F06-	CC		
1F07-	F4 1E	5034	.SI MOVE-\$07
1F09-	FC 08	5035	RVL
1FOB-	44 OA	5036	.SI FENCE
1F0D-	9D 08	5037	.SI AT
1FOF-	49 02	5038	.SI LIT
1F11-	DC 1B	5039	.SI FORG+6
1F13-	00 07	5040	.SI TOR
1F15-	D2 06	5041	.SI SEMIS
		5042	
		5043 ;	COLD
		5044	
1F17-	84 43 4F	5045	.BY \$84 'COL' \$C4
1F1A-	4C C4		
1F1C-	03 1F	5046	.SI RVL-\$06
1F1E-	FC 08	5047	COLD
1F20-	09 1F	5048	.SI RVL
1F22-	1A 14	5049	.SI CCOLD
1F24-	D2 06	5050	.SI SEMIS
		5051	
		5052 ;	SPACES
		5053	
1F26-	86 53 50	5054	.BY \$86 'SPACE' \$D3
1F29-	41 43 45		
1F2C-	D3		
1F2D-	17 1F	5055	.SI COLD-\$07
1F2F-	FC 08	5056	SPACS
1F31-	88 09	5057	.SI ZERO
1F33-	C8 15	5058	.SI MAX
1F35-	49 OC	5059	.SI DDUP
1F37-	9B 03	5060	.SI ZBRAN
1F39-	0C 00	5061	.SE SPACS2=-
1F3B-	88 09	5062	.SI ZERO
1F3D-	23 04	5063	.SI PDO
1F3F-	3A OC	5064	SPACES1
1F41-	BC 03	5065	.SI SPACE
1F43-	FC FF	5066	.SI PLOOP
1F45-	D2 06	5067	.SE SPACS1=-
		5068	.SI SEMIS
		5069 ;	<#
		5070	
1F47-	82 3C A3	5071	.BY \$82 '<' \$A3
1F4A-	26 1F	5072	.SI SPACS-\$09
1F4C-	FC 08	5073	BDIGS
1F4E-	E7 OF	5074	.SI PAD
1F50-	D9 OA	5075	.SI HLD

1F52- C1 08	5076	.SI STORE
1F54- D2 06	5077	.SI SEMIS
	5078	
	5079 ;	#>
	5080	
1F56- 82 23 BE	5081	.BY \$82 '#' \$BE
1F59- 47 1F	5082	.SI BDIGS-\$05
1F5B- FC 08	5083	EDIGS .SI DOCOL
1F5D- 3D 08	5084	.SI DROP
1F5F- 3D 08	5085	.SI DROP
1F61- D9 0A	5086	.SI HLD
1F63- 9D 08	5087	.SI AT
1F65- E7 OF	5088	.SI PAD
1F67- 2C 08	5089	.SI OVER
1F69- 3A 0B	5090	.SI SUB
1F6B- D2 06	5091	.SI SEMIS
	5092	
	5093 ;	SIGN
	5094	
1F6D- 84 53 49	5095	.BY \$84 'SIG' SCE
1F70- 47 CE		
1F72- 56 1F	5096	.SI EDIGS-\$05
1F74- FC 08	5097	SIGN .SI DOCOL
1F76- 26 0C	5098	.SI ROT
1F78- 68 07	5099	.SI ZLESS
1F7A- 9B 03	5100	.SI ZBRAN
1F7C- 07 00	5101	.SE SIGN1-=
1F7E- 8F 02	5102	.SI CLIT
1F80- 2D	5103	.BY \$2D
1F81- CF OF	5104	.SI HOLD
1F83- D2 06	5105	SIGN1 .SI SEMIS
	5106	
	5107 ;	#
	5108	
1F85- 81 A3	5109	.BY \$81 \$A3
1F87- 6D 1F	5110	.SI SIGN-\$07
1F89- FC 08	5111	DIG .SI DOCOL
1F8B- AD 0A	5112	.SI BASE
1F8D- 9D 08	5113	.SI AT
1F8F- 84 16	5114	.SI MSMOD
1F91- 26 0C	5115	.SI ROT
1F93- 8F 02	5116	.SI CLIT
1F95- 09	5117	.BY \$09
1F96- 2C 08	5118	.SI OVER
1F98- C2 0B	5119	.SI LESS
1F9A- 9B 03	5120	.SI ZBRAN
1F9C- 07 00	5121	.SE DIG1-=
1F9E- 8F 02	5122	.SI CLIT
1FA0- 07	5123	.BY \$07
1FA1- 90 07	5124	.SI PLUS
1FA3- 8F 02	5125	DIG1 .SI CLIT
1FA5- 30	5126	.BY \$30
1FA6- 90 07	5127	.SI PLUS
1FA8- CF OF	5128	.SI HOLD
1FAA- D2 06	5129	.SI SEMIS
	5130	
	5131 ;	#S
	5132	

1FAC- 82 23 D3	5133	.BY \$82 '#' \$D3
1FAF- 85 1F	5134	.SI DIG-\$04
1FB1- FC 08	5135	DIGS .SI DOCOL
1FB3- 89 1F	5136	DIGS1 .SI DIG
1FB5- 2C 08	5137	.SI OVER
1FB7- 2C 08	5138	.SI OVER
1FB9- 73 06	5139	.SI OR
1FBB- 53 07	5140	.SI ZEQU
1FBD- 9B 03	5141	.SI ZBRAN
1FBF- F4 FF	5142	.SE DIGS1--
1FC1- D2 06	5143	.SI SEMIS
	5144	
	5145 ;	D.R
	5146	
1FC3- 83 44 2E	5147	.BY \$83 'D.' \$D2
1FC6- D2		
1FC7- AC 1F	5148	.SI DIGS-\$05
1FC9- FC 08	5149	DDOTR .SI DOCOL
1FCB- 00 07	5150	.SI TOR
1FCD- 46 08	5151	.SI SWAP
1FCF- 2C 08	5152	.SI OVER
1FD1- A2 15	5153	.SI DABS
1FD3- 4C 1F	5154	.SI BDIGS
1FD5- B1 1F	5155	.SI DIGS
1FD7- 74 1F	5156	.SI SIGN
1FD9- 5B 1F	5157	.SI EDIGS
1FDB- 12 07	5158	.SI RFROM
1FDD- 2C 08	5159	.SI OVER
1FDF- 3A 0B	5160	.SI SUB
1FE1- 2F 1F	5161	.SI SPACS
1FE3- 62 0E	5162	.SI TYPE
1FE5- D2 06	5163	.SI SEMIS
	5164	
	5165 ;	D.
	5166	
1FE7- 82 44 AE	5167	.BY \$82 'D' \$AE
1FEA- C3 1F	5168	.SI DDOTR-\$06
1FEC- FC 08	5169	DDOT .SI DOCOL
1FEE- 88 09	5170	.SI ZERO
1FF0- C9 1F	5171	.SI DDOTR
1FF2- 3A 0C	5172	.SI SPACE
1FF4- D2 06	5173	.SI SEMIS
	5174	
	5175 ;	U.
	5176	
1FF6- 82 55 AE	5177	.BY \$82 'U' \$AE
1FF9- E7 1F	5178	.SI DDOT-\$05
1FFB- FC 08	5179	UDOT .SI DOCOL
1FFD- 88 09	5180	.SI ZERO
1FFF- EC 1F	5181	.SI DDOT
2001- D2 06	5182	.SI SEMIS
	5183	
	5184 ;	R
	5185	
2003- 82 2E D2	5186	.BY \$82 'U' \$D2
2006- F6 1F	5187	.SI UDOT-\$05
2008- FC 08	5188	DOTR .SI DOCOL
200A- 00 07	5189	.SI TOR

200C- 60 15	5190	.SI STOD
200E- 12 07	5191	.SI RFROM
2010- C9 1F	5192	.SI DDOTR
2012- D2 06	5193	.SI SEMIS
	5194	
	5195 ;	
	5196	
2014- 81 AE	5197	.BY \$81 \$AE
2016- 03 20	5198	.SI DOTR-\$05
2018- FC 08	5199 SDOT	.SI DOCOL
201A- 60 15	5200	.SI STOD
201C- EC 1F	5201	.SI DDOT
201E- D2 06	5202	.SI SEMIS
	5203	
	5204 ;	S. - STACK PRINT
	5205	
2020- 82 53 AE	5206	.BY \$82 'S' \$AE
2023- 14 20	5207	.SI DOT-\$04
2025- FC 08	5208 SDOT	.SI DOCOL
2027- BF 0E	5209	.SI PDOTQ
2029- 05 42 4F	5210	.BY \$05 'BOT> '
202C- 54 3E 20		
202F- AB 1E	5211	.SI DEPTH
2031- 49 0C	5212	.SI DDUP
2033- 9B 03	5213	.SI ZBRAN
2035- 16 00	5214	.SE SDOT2=-
2037- 90 09	5215	.SI ONE
2039- 46 08	5216	.SI SWAP
203B- 23 04	5217	.SI PDO
203D- 3C 04	5218 SDOT1	.SI I
203F- 88 1D	5219	.SI PICK
2041- 18 20	5220	.SI DOT
2043- 49 02	5221	.SI LIT
2045- FF FF	5222	.SE \$FFFF
2047- EC 03	5223	.SI PPLOO
2049- F4 FF	5224	.SE SDOT1=-
204B- BF 0E	5225 SDOT2	.SI PDOTQ
204D- 05 3C 54	5226	.BY \$05 '<TOP> '
2050- 4F 50 20		
2053- D2 06	5227	.SI SEMIS
	5228	
	5229 ;	?
	5230	
2055- 81 BF	5231	.BY \$81 \$BF
2057- 20 20	5232	.SI SDOT-\$05
2059- FC 08	5233 QUES	.SI DOCOL
205B- 9D 08	5234	.SI AT
205D- 18 20	5235	.SI DOT
205F- D2 06	5236	.SI SEMIS
	5237	
	5238 ;	LIST
	5239	
2061- 84 4C 49	5240	.BY \$84 'LIS' \$D4
2064- 53 D4		
2066- 55 20	5241	.SI QUES-\$04
2068- FC 08	5242 LIST	.SI DOCOL
206A- D7 0D	5243	.SI DECIM
206C- AB 05	5244	.SI CR

206E- 5E 08	5245	.SI DUP
2070- 7E 0A	5246	.SI SCR
2072- C1 08	5247	.SI STORE
2074- BF 0E	5248	.SI PDOTQ
2076- 07 53 63	5249	.BY \$07 'Screen'
2079- 72 65 65		
207C- 6E 20		
207E- 5E 08	5250	.SI DUP
2080- 18 20	5251	.SI DOT
2082- C2 0D	5252	.SI HEX
2084- 8F 02	5253	.SI CLIT
2086- 05	5254	.BY \$05
2087- 08 20	5255	.SI DOTR
2089- BF 0E	5256	.SI PDOTQ
208B- 04 20 68	5257	.BY \$04 'hex'
208E- 65 78		
2090- D7 0D	5258	.SI DECIM
2092- 8F 02	5259	.SI CLIT
2094- 10	5260	.BY \$10
2095- 88 09	5261	.SI ZERO
2097- 23 04	5262	.SI PDO
2099- AB 05	5263 LIST1	.SI CR
209B- 3C 04	5264	.SI I
209D- A0 09	5265	.SI THREE
209F- 08 20	5266	.SI DOTR
20A1- 3A 0C	5267	.SI SPACE
20A3- 3C 04	5268	.SI I
20A5- 7E 0A	5269	.SI SCR
20A7- 9D 08	5270	.SI AT
20A9- 09 18	5271	.SI DLINE
20AB- A4 05	5272	.SI QTERM
20AD- 9B 03	5273	.SI ZBRAN
20AF- 04 00	5274	.SE LIST2=-
20B1- E5 06	5275	.SI LEAVE
20B3- BC 03	5276 LIST2	.SI PLOOP
20B5- E4 FF	5277	.SE LIST1=-
20B7- AB 05	5278	.SI CR
20B9- D2 06	5279	.SI SEMIS
	5280	
	5281 ;	INDEX
	5282	
20BB- 85 49 4E	5283	.BY \$85 'INDE' \$D8
20BE- 44 45 D8		
20C1- 61 20	5284	.SI LIST-\$07
20C3- FC 08	5285 INDEX	.SI DOCOL
20C5- AB 05	5286	.SI CR
20C7- E1 0A	5287	.SI ONEP
20C9- 46 08	5288	.SI SWAP
20CB- 23 04	5289	.SI PDO
20CD- AB 05	5290 INDEX1	.SI CR
20CF- 3C 04	5291	.SI I
20D1- A0 09	5292	.SI THREE
20D3- 08 20	5293	.SI DOTR
20D5- 3A 0C	5294	.SI SPACE
20D7- 88 09	5295	.SI ZERO
20D9- 3C 04	5296	.SI DLINE
20DB- 09 18	5297	.SI QTERM
20DD- A4 05	5298	.SI QTERM

20DF- 9B 03	5299	.SI ZBRAN
20E1- 04 00	5300	.SE INDEX2--
20E3- E5 06	5301	.SI LEAVE
20E5- BC 03	5302	INDEX2
20E7- E6 FF	5303	.SE INDEX1--
20E9- D2 06	5304	.SI SEMIS
	5305	
	5306 ;	TRIAD
	5307	
20EB- 85 54 52	5308	.BY \$85 'TRIA' \$C4
20EE- 49 41 C4		
20F1- BB 20	5309	.SI INDEX-\$08
20F3- FC 08	5310	TRIAD
20F5- 5E 08	5311	.SI DOCOL
20F7- A0 09	5312	.SI DUP
20F9- 90 07	5313	.SI THREE
20FB- 46 08	5314	.SI PLUS
20FD- 23 04	5315	.SI SWAP
20FF- AB 05	5316	TRIAD1
2101- 3C 04	5317	.SI PDO
2103- 68 20	5318	.SI CR
2105- BC 03	5319	.SI LIST
2107- F8 FF	5320	.SI PLOOP
2109- AB 05	5321	.SE TRIAD1--
210B- 8F 02	5322	.SI CR
210D- OF	5323	.SI CLIT
210E- 1D 18	5324	.BY \$OF
2110- D2 06	5325	.SI MESS
	5326	.SI SEMIS
	5327	
	5328 ;	VLIST
	5329	
2112- 85 56 4C	5330	.BY \$85 'VLIS' \$D4
2115- 49 53 D4		
2118- EB 20	5331	.SI TRIAD-\$08
211A- FC 08	5332	VLIST
211C- 8F 02	5333	.SI DOCOL
211E- 80	5334	.SI CLIT
211F- 75 0A	5335	.BY \$80
2121- C1 08	5336	.SI OUT
2123- 8B 0A	5337	.SI STORE
2125- 9D 08	5338	.SI CON
2127- 9D 08	5339	.SI AT
2129- 75 0A	5340	VLIST1
212B- 9D 08	5341	.SI AT
212D- B2 09	5342	.SI OUT
212F- 8F 02	5343	.SI TW
2131- 10	5344	.SI CLIT
2132- 3A 0B	5345	.BY \$10
2134- 18 OC	5346	.SI SUB
2136- 9B 03	5347	.SI GREAT
2138- 0A 00	5348	.SI ZBRAN
213A- AB 05	5349	.SE VLIST2--
213C- 88 09	5350	.SI CR
213E- 75 0A	5351	.SI ZERO
2140- C1 08	5352	.SI OUT
2142- 5E 08	5353	VLIST2
2144- 59 11	5354	.SI STORE
		.SI DUP
		.SI IDDOT

2146- 3A 0C	5355	.SI SPACE
2148- 3A 0C	5356	.SI SPACE
214A- C4 0C	5357	.SI PFA
214C- 94 0C	5358	.SI LFA
214E- 9D 08	5359	.SI AT
2150- 5E 08	5360	.SI DUP
2152- 53 07	5361	.SI ZEQU
2154- A4 05	5362	.SI QTERM
2156- 73 06	5363	.SI OR
2158- 9B 03	5364	.SI ZBRAN
215A- CF FF	5365	.SE VLIST1--
215C- 3D 08	5366	.SI DROP
215E- D2 06	5367	.SI SEMIS
	5368	
	5369	.CT 1FTH55
5370 ;		
5371 ;*****		*****
5372 ;**		SK-FORTH (79-STANDARD) **
5373 ;**		BY JACK W. BROWN **
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5377 ;**		P. O. BOX 397 **
5378 ;**		NEW WESTMINSTER, B. C. **
5379 ;**		V3L 4Y7, CANADA **
5380 ;*****		*****
5381 ;		
5382 ;		
5383 ;*****		*****
5384 ;**		SYM/KIM- FORTH PART 10 **
5385 ;**		DISK FILE FTH55 **
5386 ;*****		*****
5387 ;		
5388 ;		MON
5389 ;		
2160- 83 4D 4F	5390	.BY \$83 'MO' \$CE
2163- CE		
2164- 12 21	5391	.SI VLIST-\$08
2166- 68 21	5392	MON .SI +=2
	5393	
	5394	IFE SYM-1
	5395	
2168- A9 80	5396	LDA #\$80
216A- 8D 53 A6	5397	STA TECCHO
216D- 20 35 80	5398	JSR USRENT
2170- 20 86 8B	5399	JSR ACCESS
2173- A9 00	5400	LDA #\$00
2175- 8D 53 A6	5401	STA TECHO
2178- 4C 63 02	5402	JMP NEXT
	5403	***
	5404	
	5405	IFE KIM-1
	5406	LDA #\$4C
	5407	STA *\$00
	5408	LDA #L,NEXT

5409	STA *\$01
5410	LDA #H,NEXT
5411	STA *\$02
5412	JMP MONBRK
5413	***
5414	
217B- 86 45 58	5415 .BY \$86 'EXPEC' \$D4
217E- 50 45 43	
2181- D4	
2182- 60 21	5416 .SI MON-\$06
2184- 86 21	5417 EXPECT .SI +=2
2186- A9 02	5418 LDA #\$02 ;TRANSFER TWO
2188- 20 3E 03	5419 JSR SETUP
218B- 86 B5	5420 STX *XSAVE
218D- 20 95 21	5421 JSR FILBUF
2190- A6 B5	5422 LDX *XSAVE
2192- 4C 63 02	5423 JMP NEXT
5424	
2195- 20 29 23	5425 FILBUF JSR ZERBUF CLEAR IN BUFFER
5426	
2198- A0 00	5427 STBUFF LDY #\$00 POINT TO START
5428	
219A- B8	5429 NEXCHR CLV USE FOR BRANCH REGARDLESS
5430	
219B- 20 AF 18	5431 JSR INTCHR
219E- C9 20	5432 CMP #\$20 IF CONTROL CHAR
21A0- 90 03	5433 BCC CTROLA THEN PROCESS IT
21A2- 4C 79 22	5434 JMP CHAR. ELSE PROCESS CHARACTER
5435	
21A5- C9 01	5436 CTROLA CMP #\$01
21A7- D0 22	5437 BNE CTROLH
21A9- CO 00	5438 CPY #\$00
21AB- F0 57	5439 BEQ BEEP1
21AD- 20 1E 23	5440 JSR CRLF
21BO- 20 B5 21	5441 JSR CTROLAO
21B3- 50 E3	5442 BVC STBUFF
21B5- AE 2B 15	5443 CTROLAO LDX HARD+3
21B8- D0 10	5444 BNE CTROLA2
21BA- AD 40 02	5445 LDA KTMFLG
21BD- D0 03	5446 BNE CTROLA1
21BF- 4C OC 02	5447 JMP TCRLF.VEC
21C2- 88	5448 CTROLA1 DEY
21C3- 20 13 23	5449 JSR BCKSPC
21C6- CO 00	5450 CPY #\$00
21C8- D0 F8	5451 BNE CTROLA1
21CA- 60	5452 CTROLA2 RTS
5453	
21CB- C9 08	5454 CTROLH CMP #\$08 ;BACK SPACE?
21CD- D0 18	5455 BNE CTROLI ;NO
21CF- AE 40 02	5456 LDX KTMFLG
21D2- F0 C6	5457 BEQ NEXCHR
21D4- AE 2B 15	5458 LDX HARD+3
21D7- D0 C1	5459 BNE NEXCHR
21D9- CO 00	5460 CPY #\$00 ;YES- AT START ALREADY?
21DB- D0 03	5461 BNE CTROLH1
21DD- 4C 4A 22	5462 JMP CTROLZ1
21EO- 88	5463 CTROLH1 DEY ;NO FALL THROUGH WITH BS
21E1- 20 09 02	5464 JSR TOUT.VEC

21E4- 4C 9A 21	5465 JMP NEXCHR
5466	
21E7- C9 09	5467 CTROLI CMP #\$09 ;HORZ TAB?
21E9- D0 09	5468 BNE CTROLM ;NO
21EB- C4 A6	5469 CPY *N ;YES- AT END ALREADY?
21ED- B0 BA	5470 BCS CTROLA+4
21EF- B1 A8	5471 LDA (N+2),Y ;NO- DUMP CHAR THEN
21F1- F0 B6	5472 BEQ CTROLA+4
21F3- C8	5473INY
5474	
21F4- C9 OD	5475 CTROLM CMP #\$0D ;RETURN?
21F6- D0 12	5476 BNE CTROLS ;NO
21F8- 20 95 22	5477 JSR EEOF
21FB- A9 00	5478 LDA #\$00
21FD- 91 A8	5479 STA (N+2),Y
21FF- A9 20	5480 LDA #\$20
2201- 4C 15 02	5481 JMP ECHAR.VEC
2204- 20 1E 02	5482 BEEP1 JSR BELL.VEC
2207- 4C 9A 21	5483 NEXCHR1 JMP NEXCHR
5484	
220A- C9 13	5485 CTROLS CMP #\$13 ;MONITOR JUMP?
220C- D0 0B	5486 BNE CTROLT ;NO
5487	IFE SYM-1
220E- A9 80	5488 LDA #\$80 ;YES RESTORE ECHO
2210- 8D 53 A6	5489 STA TECHO
2213- 20 35 80	5490 JSR USRENT
2216- 4C 2C 14	5491 JMP WARM
5492	***
5493	IFE KIM-1
5494	LDA #\$4C
5495	STA *\$00
5496	LDA #L,REENTER
5497	STA *\$01
5498	LDA #H,REENTER
5499	STA *\$02
5500	JMP MONBRK
5501	***
2219- C9 14	5503 CTROLT CMP #\$14 ;TOGGLE CASSETTE?
221B- D0 15	5504 BNE CTROLX ;NO
221D- 20 AF 18	5505 JSR INTCHR
2220- C9 30	5506 CMP #\$30 ;CASSETTE 0?
2222- D0 05	5507 BNE CTROLT1 ;NO-
2224- 20 4B 19	5508 JSR TOGO ;YES- DO IT TO IT
2227- 50 DE	5509 BVC NEXCHR1
2229- C9 31	5510 CTROLT1 CMP #\$31 ;CASSETTE 1 THEN?
222B- D0 D7	5511 BNE BEEP1 ;NO BEEP THE OPERATOR
222D- 20 42 19	5512 JSR TOG1 ;YES DO
2230- 50 D5	5513 BVC NEXCHR1
5514	
2232- C9 18	5515 CTROLX CMP #\$18 ;CANCEL LINE?
2234- D0 10	5516 BNE CTROLZ ;NO
2236- CO 00	5517 CPY #\$00
2238- F0 03	5518 BEQ CTROLXI
223A- 20 C2 21	5519 JSR CTROLA1
223D- 20 95 22	5520 CTROLXI JSR EEOF
2240- 20 1E 23	5521 JSR CRLF ;SEND IF PRINTER ON
2243- 4C 95 21	5522 JMP FILBUF

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      5523
2246- C9 1A 5524 CTROLZ   CMP #$1A ;SKIP TO END?
2248- D0 0F 5525 BNE ESCAPE ;NO
224A- B1 A8 5526 CTROLZ1  LDA (N+2),Y ;YES
224C- F0 06 5527 BEQ CTROLZ2
224E- 20 15 02 5528 JSR ECHAR.VEC
2251- C8    5529 INY
2252- 50 F6  5530 BVC CTROLZ1
2254- 20 95 22 5531 CTROLZ2 JSR EEOF
2257- 50 19  5532 BVC NEXCHR2
      5533
2259- C9 1B 5534 ESCAPE  CMP #$1B ;SKIP TO CHARACTER?
225B- D0 17 5535 BNE ECHO  ;NO
225D- 20 AF 18 5536 JSR INTCHR
2260- 85 A7  5537 STA *N+1
2262- B1 A8  5538 ESCAPE1 LDA (N+2),Y
2264- F0 EE  5539 BEQ CTROLZ2
2266- 20 15 02 5540 JSR ECHAR.VEC
2269- C8    5541 INY
226A- C5 A7  5542 CMP *N+1
226C- F0 99  5543 BEQ NEXCHR1
226E- C4 A6  5544 CPY *N
2270- 90 F0  5545 BCC ESCAPE1
2272- 50 93  5546 NEXCHR2
      5547
2274- 20 15 02 5548 ECHO   JSR ECHAR.VEC
2277- 50 F9  5549 BVC NEXCHR2
      5550
2279- C9 5F  5551 CHAR.  CMP #$5F ;DELETE?
227B- F0 04  5552 BEQ DELETE
227D- C9 7F  5553 CMP #$7F ;DELETE?
227F- D0 0F  5554 BNE ACCEPT
      5555
2281- C0 00  5556 DELETE  CPY #$00 ;READY AT START?
2283- F0 08  5557 BEQ BEEP2
2285- 20 F7 22 5558 JSR DELCHR
2288- 20 E3 22 5559 JSR MOVDWN
228B- 50 E5  5560 BVC NEXCHR2
228D- 4C 04 22 5561 BEEP2
      5562
2290- 20 B6 22 5563 ACCEPT JSR INSERT
2293- 50 DD  5564 BVC NEXCHR2
      5565
      5566 ;** IF YOU HAVE A HI SPEED TERMINAL YOU
      5567 ;** MAY NOP THE RTS AND USE THE SUBROUTINE
      5568 ;** THAT FOLLOWS TO ERASE TO END OF FIELD
      5569 ;** OR ECHO THE APPROPRIATE CONTROL CHARACTER
      5570
      5571
2295- AD 40 02 5572 EEOF   LDA KTMFLG
2298- F0 1B  5573 BEQ EEOF3
229A- AD 2B 15 5574 LDA HARD+3
229D- D0 16  5575 BNE EEOF3
229F- 84 A7  5576 STY *N+1
22A1- A9 20  5577 EEOF1  LDA #$20
22A3- 20 09 02 5578 JSR TOUT.VEC
22A6- C8    5579 INY
22A7- C4 A6  5580 CPY *N

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      5581
22A9- 90 F6  5581 BCC EEOF1
22AB- A9 08  5582 EEOF2  LDA #$08
22AD- 20 09 02 5583 JSR TOUT.VEC
22B0- 88    5584 DEY
22B1- C4 A7  5585 CPY *N+1
22B3- D0 F6  5586 BNE EEOF2
22B5- 60    5587 EEOF3  RTS
      5588
22B6- 48    5589 INSERT  PHA ;SAVE CHARACTER
22B7- 98    5590 TYA ;SAVE Y TOO
22B8- 48    5591 PHA
22B9- A2 01  5592 LDX #$01 ;FIND BUFFER END
22BB- B1 A8  5593 INSERT1 LDA (N+2),Y
22BD- F0 04  5594 BEQ INSERT2
22BF- C8    5595 INY
22CO- E8    5596 INX
22C1- 50 F8  5597 BVC INSERT1
      5598
22C3- C4 A6  5599 INSERT2 CPY *N ;PASED END?
22C5- 90 08  5600 BCC INSERT3 ;NOPE
22C7- 68    5601 PLA ;YES- RESTORE AND BEEP
22C8- A8    5602 TAY
22C9- 68    5603 PLA
22CA- 20 1E 02 5604 JSR BELL.VEC
22CD- 50 13  5605 BVC INSERT4
      5606
22CF- B1 A8  5607 INSERT3 LDA (N+2),Y
22D1- C8    5608 INY
22D2- 91 A8  5609 STA (N+2),Y
22D4- 88    5610 DEY
22D5- 88    5611 DEY
22D6- CA    5612 DEX
22D7- D0 F6  5613 BNE INSERT3
22D9- 68    5614 PLA
22DA- A8    5615 TAY
22DB- 68    5616 PLA
22DC- 91 A8  5617 STA (N+2),Y
22DE- 20 15 02 5618 JSR ECHAR.VEC
22E1- C8    5619 INY
22E2- 60    5620 INSERT4 RTS
      5621
22E3- 98    5622 MOVDWN TYA
22E4- 48    5623 PHA ;SAVE Y
22E5- B1 A8  5624 MOVDWN1 LDA (N+2),Y
22E7- F0 07  5625 BEQ MOVDWN2
22E9- 88    5626 DEY
22EA- 91 A8  5627 STA (N+2),Y
22EC- C8    5628 INY
22ED- C8    5629 INY
22EE- 50 F5  5630 BVC MOVDWN1
22F0- 88    5631 MOVDWN2 DEY
22F1- 91 A8  5632 STA (N+2),Y
22F3- 68    5633 PLA ;RESTORE Y
22F4- A8    5634 TAY
22F5- 88    5635 DEY
22F6- 60    5636 RTS
      5637
22F7- AE 40 02 5638 DELCHR LDX KTMFLG

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22FA-	F0 1C	5639	BEQ BCKSL
22FC-	AE 2A 15	5640	LDX HARD+2
22FF-	F0 0A	5641	BEQ DELCHR1
2301-	A9 5C	5642	LDA #\$5C
2303-	20 OF 02	5643	JSR POUT.VEC
2306-	AE 2B 15	5644	LDX HARD+3
2309-	D0 12	5645	BNE DELCHR2
230B-	20 13 23	5646	DELCHR1
230E-	A9 20	5647	JSR BCKSPC
2310-	20 09 02	5648	LDA #\$20
2313-	A9 08	5649	JSR TOUT.VEC
2315-	4C 09 02	5650	LDA #\$08
2318-	A9 5C	5651	JMP TOUT.VEC
231A-	20 15 02	5652	BCKSL
231D-	60	5653	LDA #\$5C
		5654 ;	JSR ECHAR.VEC
		5655 CRLFP	RTS
231E-	AE 2A 15	5655	LDX HARD+2
2321-	F0 05	5656	BEQ CRLFP1
2323-	48	5657	PHA
2324-	20 12 02	5658	JSR PCRLF.VEC
2327-	68	5659	PLA
2328-	60	5660	CRLFP1
		5661	RTS
2329-	A4 A6	5662	ZERBUF
232B-	A9 00	5663	LDY *N
232D-	91 A8	5664	LDA #\$00
232F-	88	5665	ZERBUF1
2330-	10 FB	5666	STA (N+2),Y
2332-	60	5667	DEY
		5668	BPL ZERBUF1
		5669 ;	RTS
2333-	84 45 44	5670	EDIT
		5671	.BY \$84 'EDI' \$D4
2336-	49 D4		
2338-	7B 21	5672	.SI EXPECT-\$09
233A-	3C 23	5673	EDIT
233C-	A9 02	5674	.SI +=2
233E-	20 3E 03	5675	LDA #\$02
2341-	86 B5	5676	JSR SETUP
2343-	20 4A 22	5677	STX *XSAVE
2346-	A6 B5	5678	JSR CTROLZ1
2348-	CA	5679	LDX *XSAVE
2349-	CA	5680	DEX
234A-	98	5681	DEX
234B-	4C A2 06	5682	TYA
		5683	JMP PUSHOA
		5684	
		5685 ;	X ASCII NULL
		5686	
234E-	C1 80	5687	.BY \$C1 \$80
2350-	33 23	5688	.SI EDIT-\$07
2352-	FC 08	5689	NUL
2354-	63 0A	5690	.SI DOCOL
2356-	9D 08	5691	.SI BLK
2358-	9B 03	5692	.SI AT
235A-	2A 00	5693	.SI ZBRAN
235C-	90 09	5694	.SE NULL2=-
235E-	63 0A	5695	.SI ONE
		5696	.SI BLK

2360-	6D 08	5696	.SI PSTOR
2362-	88 09	5697	.SI ZERO
2364-	6C 0A	5698	.SI IN
2366-	C1 08	5699	.SI STORE
2368-	63 0A	5700	.SI BLK
236A-	9D 08	5701	.SI AT
236C-	88 09	5702	.SI ZERO
236E-	03 0A	5703	.SI BSCR
2370-	21 06	5704	.SI USLAS
2372-	3D 08	5705	.SI DROP
2374-	53 07	5706	.SI ZEQU
2376-	9B 03	5707	.SI ZBRAN
2378-	08 00	5708	.SE NULL1=-
237A-	1C 0D	5709	.SI QEXEC
237C-	12 07	5710	.SI RFROM
237E-	3D 08	5711	.SI DROP
2380-	7C 03	5712	.SI BRAN
2382-	06 00	5713	.SE NULL3=-
2384-	12 07	5714	.SI RFROM
2386-	3D 08	5715	.SI DROP
2388-	D2 06	5716	.SI SEMIS
		5717	
		5718	
		5719 ;	PUT
		5720	
238A-	83 50 55	5721	.BY \$83 'PU' \$D4
238D-	D4		
238E-	4E 23	5722	.SI NULL-\$04
2390-	FC 08	5723	PUTT
2392-	C6 17	5724	.SI SAVBUF
2394-	C5 23	5725	.SI SCRAD
2396-	99 14	5726	.SI TEAD
2398-	C1 08	5727	.SI STORE
239A-	8E 14	5728	.SI TSAD
239C-	C1 08	5729	.SI STORE
239E-	A4 14	5730	.SI TFID
23A0-	C1 08	5731	.SI STORE
23A2-	90 09	5732	.SI ONE
23A4-	1D 15	5733	.SI W/T
23A6-	9D 08	5734	.SI AT
23A8-	33 15	5735	.SI TAPE
23AA-	AD 14	5736	.SI S2
23AC-	88 09	5737	.SI ZERO
23AE-	1D 15	5738	.SI W/T
23B0-	9D 08	5739	.SI AT
23B2-	33 15	5740	.SI TAPE
23B4-	04 0F	5741	.SI BEP
23B6-	8F 02	5742	.SI CLIT
23B8-	0A	5743	.BY \$0A
23B9-	EB 0C	5744	.SI QERR
23BB-	D2 06	5745	.SI SEMIS
		5746	
		5747 ;	SCRAD GET SCREEN ADDRESS
		5748	
23BD-	85 53 43	5749	.BY \$85 'SCRA' \$C4
23CO-	52 41 C4		
23C3-	8A 23	5750	.SI PUTT-\$06
23C5-	FC 08	5751	SCRAD

23C7- 54 OB	5752	.SI ONESB
23C9- 49 02	5753	.SI LIT
23CB- 00 04	5754	.SE \$0400
23CD- 22 16	5755	.SI STAR
23CF- AE 19	5756	.SI LO
23D1- 9D 08	5757	.SI AT
23D3- 90 07	5758	.SI PLUS
23D5- B7 19	5759	.SI HI
23D7- 9D 08	5760	.SI AT
23D9- 2C 08	5761	.SI OVER
23DB- B1 0B	5762	.SI ULESS
23DD- 8F 02	5763	.SI CLIT
23DF- 06	5764	.BY \$06
23E0- EB 0C	5765	.SI QERR
23E2- 5E 08	5766	.SI DUP
23E4- 49 02	5767	.SI LIT
23E6- FF 03	5768	.SE \$03FF
23E8- 90 07	5769	.SI PLUS
23EA- 04 OF	5770	.SI BEP
23EC- D2 06	5771	.SI SEMIS
	5772	
	5773 ;	GET ACCORDING TO TAPE ID
	5774	

23EE- 83 47 45	5775	.BY \$83 'GE' \$D4
23F1- D4		
23F2- BD 23	5776	.SI SCRAD-\$08
23F4- FC 08	5777 GET	.SI DOCOL
23F6- C6 17	5778	.SI SAVBUF
23F8- A4 14	5779	.SI TFID
23FA- C1 08	5780	.SI STORE
23FC- 90 09	5781	.SI ONE
23FE- 13 15	5782	.SI R/T
2400- 9D 08	5783	.SI AT
2402- 33 15	5784	.SI TAPE
2404- 04 OF	5785	.SI BEP
2406- CF 14	5786	.SI L2
2408- 88 09	5787	.SI ZERO
240A- 13 15	5788	.SI R/T
240C- 9D 08	5789	.SI AT
240E- 33 15	5790	.SI TAPE
2410- 04 OF	5791	.SI BEP
2412- 8F 02	5792	.SI CLIT
2414- 0B	5793	.BY \$0B
2415- EB 0C	5794	.SI QERR
2417- 08 17	5795	.SI EMBUF
2419- D2 06	5796	.SI SEMIS
	5797	
	5798 ;	SGET FORCED LOAD TO INDICATED SCREEN
	5799	

241B- 84 53 47	5800	.BY \$84 'SGE' \$D4
241E- 45 D4		
2420- EE 23	5801	.SI GET-\$06
2422- FC 08	5802 SGET	.SI DOCOL
2424- C6 17	5803	.SI SAVBUF
2426- 8F 02	5804	.SI CLIT
2428- FF	5805	.BY \$FF
2429- A4 14	5806	.SI TFID
242B- C1 08	5807	.SI STORE

242D- C5 23	5808	.SI SCRAD
242F- 99 14	5809	.SI TEAD
2431- C1 08	5810	.SI STORE
2433- 8E 14	5811	.SI TSAD
2435- C1 08	5812	.SI STORE
2437- 90 09	5813	.SI ONE
2439- 13 15	5814	.SI R/T
243B- 9D 08	5815	.SI AT
243D- 33 15	5816	.SI TAPE
243F- E4 14	5817	.SI LF2
2441- 88 09	5818	.SI ZERO
2443- 13 15	5819	.SI R/T
2445- 9D 08	5820	.SI AT
2447- 33 15	5821	.SI TAPE
2449- 04 OF	5822	.SI BEP
244B- 8F 02	5823	.SI CLIT
244D- 0B	5824	.BY \$0B
244E- EB 0C	5825	.SI QERR
2450- 08 17	5826	.SI EMBUF
2452- D2 06	5827	.SI SEMIS
	5828	
	5829 ;	SYSLOAD MOVE FENCE TO HERE AND COLD START
	5830	

2454- 87 53 59	5831	.BY \$87 'SYSCOL' \$C4
2457- 53 43 4F		
245A- 4C C4		
245C- 1B 24	5832	.SI SGET-\$07
245E- FC 08	5833 SYSLOAD	.SI DOCOL
2460- 3E 13	5834	.SI FORTH
2462- 8B 0A	5835	.SI CON
2464- 9D 08	5836	.SI AT
2466- 9D 08	5837	.SI AT
2468- 49 02	5838	.SI LIT
246A- 2A 02	5839	.SE FORTH.TOP
246C- C1 08	5840	.SI STORE
246E- FD 0A	5841	.SI HERE
2470- 5E 08	5842	.SI DUP
2472- 49 02	5843	.SI LIT
2474- 3A 02	5844	.SE I.FENCE
2476- C1 08	5845	.SI STORE
2478- 49 02	5846	.SI LIT
247A- 3C 02	5847	.SE I.DP
247C- C1 08	5848	.SI STORE
247E- 5A 0A	5849	.SI VOCL
2480- 9D 08	5850	.SI AT
2482- 49 02	5851	.SI LIT
2484- 3E 02	5852	.SE I.VOCLNK
2486- C1 08	5853	.SI STORE
2488- 1A 14	5854	.SI CCOLD
248A- D2 06	5855	.SI SEMIS
	5856	
	5857	.CT 1FTH60

5858 ;  
 5859 ;\*\*\*\*\*  
 5860 ;\*\* SK-FORTH (79-STANDARD) \*\* DE-0000

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 5868 ;\*\*\*\*\*  
 5869 ;  
 5870  
 5871 ;\*\*\*\*\*  
 5872 ;\*\* SYM/KIM-FORTH PART 11 \*\*  
 5873 ;\*\* DISK FILE FTH60 \*\*  
 5874 ;\*\*\*\*\*  
 5875  
 5876 ; SYSSAVE SAVE THE ENTIRE SYSTEM  
 5877  
 248C- 87 53 59 5878 .BY \$87 'SYSSAV' \$C5  
 248F- 53 53 41  
 2492- 56 C5  
 2494- 54 24 5879 .SI SYSCOLD-\$0A  
 2496- FC 08 5880 SYSSAVE .SI DOCOL  
 2498- A4 14 5881 .SI TFIID  
 249A- C1 08 5882 .SI STORE  
 249C- 49 02 5883 .SI LIT  
 249E- 00 02 5884 .SE SYSBASE  
 24A0- 8E 14 5885 .SI TSAD  
 24A2- C1 08 5886 .SI STORE  
 24A4- FD 0A 5887 .SI HERE  
 24A6- 99 14 5888 .SI TEAD  
 24A8- C1 08 5889 .SI STORE  
 24AA- 90 09 5890 .SI ONE  
 24AC- 1D 15 5891 .SI W/T  
 24AE- 9D 08 5892 .SI AT  
 24B0- 33 15 5893 .SI TAPE  
 24B2- 04 0F 5894 .SI BEP  
 24B4- AD 14 5895 .SI S2  
 24B6- 88 09 5896 .SI ZERO  
 24B8- 1D 15 5897 .SI W/T  
 24BA- 9D 08 5898 .SI AT  
 24BC- 33 15 5899 .SI TAPE  
 24BE- 04 0F 5900 .SI BEP  
 24C0- 8F 02 5901 .SI CLIT  
 24C2- 0A 5902 .BY \$0A  
 24C3- EB OC 5903 .SI QERR  
 24C5- D2 06 5904 .SI SEMIS  
 5905  
 5906 ; CLOAD  
 5907  
 24C7- 85 43 4C 5908 .BY \$85 'CLOA' \$C4  
 24CA- 4F 41 C4  
 24CD- 8C 24 5909 .SI SYSSAVE-\$0A  
 24CF- FC 08 5910 CLOAD .SI DOCOL  
 24D1- 5E 08 5911 .SI DUP  
 24D3- 22 24 5912 .SI SGET  
 24D5- AD 0A 5913 .SI BASE  
 24D7- 9D 08 5914 .SI AT  
 24D9- 2C 08 5915 .SI OVER

24DB- 68 20 5916 .SI LIST  
 24DD- AD 0A 5917 .SI BASE  
 24DF- C1 08 5918 .SI STORE  
 24E1- 4A 18 5919 .SI LOAD  
 24E3- D2 06 5920 .SI SEMIS  
 5921  
 5922 ; EDITOR  
 5923  
 24E5- C6 45 44 5924 .BY \$C6 'EDITO' \$D2  
 24E8- 49 54 4F  
 24EB- D2  
 24EC- C7 24 5925 .SI CLOAD-\$08  
 24EE- 2B 13 5926 EDITOR .SI DOVOC  
 24FO- 81 A0 5927 .SE \$A081  
 24F2- 21 2E 5928 .SI ETOP  
 24F4- 44 13 5929 ELO .SI VLO  
 5930  
 5931 ; WHERE LIST LINE AND MARK ERROR  
 5932  
 24F6- 85 57 48 5933 .BY \$85 'WHER' \$C5  
 24F9- 45 52 C5  
 24FC- E5 24 5934 .SI EDITOR-\$09  
 24FE- FC 08 5935 WHERE .SI DOCOL  
 2500- 2C 08 5936 .SI OVER  
 2502- 2C 08 5937 .SI OVER  
 2504- 5E 08 5938 .SI DUP  
 2506- 03 0A 5939 .SI BSCR  
 2508- 41 16 5940 .SI SLASH  
 250A- 5E 08 5941 .SI DUP  
 250C- 7E 0A 5942 .SI SCR  
 250E- C1 08 5943 .SI STORE  
 2510- BF 0E 5944 .SI PDOTQ  
 2512- 07 53 63 5945 .BY \$07 'Screen'  
 2515- 72 65 65  
 2518- 6E 20  
 251A- D7 0D 5946 .SI DECIM  
 251C- 18 20 5947 .SI DOT  
 251E- 46 08 5948 .SI SWAP  
 2520- BC 09 5949 .SI CSLL  
 2522- 31 16 5950 .SI SLMOD  
 2524- BC 09 5951 .SI CSLL  
 2526- 22 16 5952 .SI STAR  
 2528- 26 0C 5953 .SI ROT  
 252A- 67 17 5954 .SI BLOCK  
 252C- 90 07 5955 .SI PLUS  
 252E- AB 05 5956 .SI CR  
 2530- BC 09 5957 .SI CSLL  
 2532- 62 0E 5958 .SI TYPE  
 2534- AB 05 5959 .SI CR  
 2536- FD 0A 5960 .SI HERE  
 2538- B2 08 5961 .SI CAT  
 253A- 3A 0B 5962 .SI SUB  
 253C- 2F 1F 5963 .SI SPACS  
 253E- 8F 02 5964 .SI CLIT  
 2540- 5E 5965 .BY \$5E  
 2541- 8E 05 5966 .SI EMIT  
 2543- EE 24 5967 .SI EDITOR  
 2545- 76 13 5968 .SI QUIT

2547- D2 06 5969 .SI SEMIS  
 5970  
 5971 ; MYSELF - USED FOR RECURSIVE DEFINITIONS  
 5972  
 2549- C6 4D 59 5973 .BY \$C6 'MYSEL' \$C6  
 254C- 53 45 4C  
 254F- C6  
 2550- F6 24 5974 .SI WHERE-\$08  
 2552- FC 08 5975 MYSELF .SI DOCOL  
 2554- 84 0C 5976 .SI LATES  
 2556- C4 0C 5977 .SI PFA  
 2558- A3 0C 5978 .SI CFA  
 255A- 19 OB 5979 .SI COMMA  
 255C- D2 06 5980 .SI SEMIS  
 5981  
 5982 ; ASSEMBLER VOCABULARY  
 5983  
 255E- C9 41 53 5984 .BY \$C9 'ASSEMBLE' \$D2  
 2561- 53 45 4D  
 2564- 42 4C 45  
 2567- D2  
 2568- 49 25 5985 .SI MYSELF-\$09  
 256A- 2B 13 5986 ASSM .SI DOVOC  
 256C- 81 A0 5987 .SE \$A081  
 256E- 5D 2C 5988 .SI ATOP  
 2570- F4 24 5989 ALO .SI ELO  
 5990  
 5991 ; 79-STANDARD  
 5992  
 2572- 8B 37 39 5993 .BY \$8B '79-STANDAR' \$C4  
 2575- 2D 53 54  
 2578- 41 4E 44  
 257B- 41 52 C4  
 257E- 5E 25 5994 .SI ASSM-\$0C  
 2580- FC 08 5995 STANDARD .SI DOCOL  
 2582- D2 06 5996 .SI SEMIS  
 5997  
 5998 ; MVAR  
 5999  
 2584- 84 4D 56 6000 .BY \$84 'MVA' \$D2  
 2587- 41 D2  
 2589- 72 25 6001 .SI STANDARD-\$0E  
 258B- E3 11 6002 MVAR .SI DOCREAT  
 258D- OD 00 6003 .SE \$000D  
 6004  
 6005 ; SMVAR  
 6006  
 258F- 85 53 4D 6007 .BY \$85 'SMVA' \$D2  
 2592- 56 41 D2  
 2595- 84 25 6008 .SI MVAR-\$07  
 2597- FC 08 6009 SMVAR .SI DOCOL  
 2599- 8F 02 6010 .SI CLIT  
 259B- OD 6011 .BY \$0D  
 259C- 8B 25 6012 .SI MVAR  
 259E- C1 08 6013 .SI STORE  
 25A0- D2 06 6014 .SI SEMIS  
 6015  
 6016 ; AINIT

6017  
 25A2- 85 41 49 6018 .BY \$85 'AINI' \$D4  
 25A5- 4E 49 D4  
 25A8- 8F 25 6019 .SI SMVAR-\$08  
 25AA- FC 08 6020 AINIT .SI DOCOL  
 25AC- 6A 25 6021 .SI ASSM  
 25AE- AD 0A 6022 .SI BASE  
 25B0- 9D 08 6023 .SI AT  
 25B2- C2 0D 6024 .SI HEX  
 25B4- 97 25 6025 .SI SMVAR  
 25B6- D2 06 6026 .SI SEMIS  
 6027  
 6028 ; CODE USED TO CREATE CODE DEFINITIONS  
 6029  
 25B8- C4 43 4F 6030 .BY \$C4 'COD' \$C5  
 25BB- 44 C5  
 25BD- A2 25 6031 .SI AINIT-\$08  
 25BF- FC 08 6032 CODE .SI DOCOL  
 25C1- 1C 0D 6033 .SI QEXEC  
 25C3- D8 0C 6034 .SI SCSP  
 25C5- 8D 11 6035 .SI CREAT  
 25C7- 84 0C 6036 .SI LATES  
 25C9- C4 OC 6037 .SI PFA  
 25CB- 5E 08 6038 .SI DUP  
 25CD- A3 0C 6039 .SI CFA  
 25CF- C1 08 6040 .SI STORE  
 25D1- B1 0D 6041 .SI SMUDG  
 25D3- AA 25 6042 .SI AINIT  
 25D5- D2 06 6043 .SI SEMIS  
 6044  
 6045 NTOP .DI CODE-\$07  
 6046 ;  
 6047 ; ATASK DUMMY TO MARK START OF ASSEMBLER WORDS  
 6048 ;  
 25D7- 85 41 54 6049 .BY \$85 'ATAS' \$CB  
 25DA- 41 53 CB  
 25DD- 40 13 6050 .SI FORTH+\$02  
 25DF- FC 08 6051 ATASK .SI DOCOL  
 25E1- D2 06 6052 .SI SEMIS  
 6053  
 6054 ; IP  
 6055  
 25E3- 82 49 D0 6056 .BY \$82 'I' \$D0  
 25E6- D7 25 6057 .SI ATASK-\$08  
 25E8- 48 09 6058 IP. .SI DOCON  
 25EA- AE 00 6059 .SI IP  
 6060  
 6061 ; W  
 6062  
 25EC- 81 D7 6063 .BY \$81 \$D7  
 25EE- E3 25 6064 .SI IP.-\$05  
 25FO- 48 09 6065 W. .SI DOCON  
 25F2- B1 00 6066 .SI W  
 6067  
 6068 ; N  
 6069  
 25F4- 81 CE 6070 .BY \$81 SCE  
 25F6- EC 25 6071 .SI W.-\$04

25F8- 48 09 6072 N. .SI DOCON  
 25FA- A6 00 6073 .SI N  
 6074  
 6075 ; XSAVE  
 6076  
 25FC- 85 58 53 6077 .BY \$85 'XSAV' \$C5  
 25FF- 41 56 C5  
 2602- F4 25 6078 .SI N.-\$04  
 2604- 48 09 6079 XSAVE. .SI DOCON  
 2606- B5 00 6080 .SI XSAVE  
 6081  
 6082 ; YSAVE  
 6083  
 2608- 85 59 53 6084 .BY \$85 'YSAV' \$C5  
 260B- 41 56 C5  
 260E- FC 25 6085 .SI XSAVE.-\$08  
 2610- 48 09 6086 YSAVE. .SI DOCON  
 2612- B6 00 6087 .SI YSAVE  
 6088  
 6089 ; UP  
 6090  
 2614- 82 55 D0 6091 .BY \$82 'U' \$D0  
 2617- 08 26 6092 .SI YSAVE.-\$08  
 2619- 48 09 6093 UP. .SI DOCON  
 261B- B3 00 6094 .SI UP  
 6095  
 6096 ; PUT  
 6097  
 261D- 83 50 55 6098 .BY \$83 'PU' \$D4  
 2620- D4  
 2621- 14 26 6099 .SI UP.-\$05  
 2623- 48 09 6100 PUT. .SI DOCON  
 2625- 5E 02 6101 .SI PUT  
 6102  
 6103 ; NEXT  
 6104  
 2627- 84 4E 45 6105 .BY \$84 'NEX' \$D4  
 262A- 58 D4  
 262C- 1D 26 6106 .SI PUT.-\$06  
 262E- 48 09 6107 NEXT. .SI DOCON  
 2630- 63 02 6108 .SI NEXT  
 6109  
 6110 ; PUSH  
 6111  
 2632- 84 50 55 6112 .BY \$84 'PUS' \$C8  
 2635- 53 C8  
 2637- 27 26 6113 .SI NEXT.-\$07  
 2639- 48 09 6114 PUSH. .SI DOCON  
 263B- 5C 02 6115 .SI PUSH  
 6116  
 6117 ; PUSHOA  
 6118  
 263D- 86 50 55 6119 .BY \$86 'PUSHO' \$C1  
 2640- 53 48 4F  
 2643- C1  
 2644- 32 26 6120 .SI PUSH.-\$07  
 2646- 48 09 6121 PUSHOA. .SI DOCON  
 2648- A2 06 6122 .SI PUSHOA

6123  
 6124 ; POP  
 6125  
 264A- 83 50 4F 6126 .BY \$83 'PO' \$D0  
 264D- D0  
 264E- 3D 26 6127 .SI PUSHOA.-\$09  
 2650- 48 09 6128 POP. .SI DOCON  
 2652- 33 04 6129 .SI POP  
 6130  
 6131 ; POPTWO  
 6132  
 2654- 86 50 4F 6133 .BY \$86 'POPTW' \$CF  
 2657- 50 54 57  
 265A- CF  
 265B- 4A 26 6134 .SI POP.-\$06  
 265D- 48 09 6135 POPTWO. .SI DOCON  
 265F- 31 04 6136 .SI POPTWO  
 6137  
 6138 ; OPCHK  
 6139  
 2661- 85 4F 50 6140 .BY \$85 'OPCH' \$CB  
 2664- 43 48 CB  
 2667- 54 26 6141 .SI POPTWO.-\$09  
 2669- 6B 26 6142 OPCHK .SI =+2  
 266B- B5 00 6143 LDA \*0,X  
 266D- 86 B5 6144 STX \*XSAVE  
 266F- B8 6145 CLV  
 2670- 4A 6146 LSR A  
 2671- 90 09 6147 BCC TYPE02  
 2673- 4A 6148 LSR A  
 2674- B0 44 6149 BCS BAD.EXIT  
 2676- C9 22 6150 CMP #\$22  
 2678- F0 40 6151 BEQ BAD.EXIT  
 267A- 50 3A 6152 BVC OK.EXIT  
 6153  
 267C- 4A 6154 TYPE02 LSR A  
 267D- 90 12 6155 BCC TYPE0  
 267F- 4A 6156 LSR A  
 2680- 90 06 6157 BCC TYPE2A  
 2682- C9 13 6158 CMP #\$13  
 2684- F0 34 6159 BEQ BAD.EXIT  
 2686- 50 2E 6160 BVC OK.EXIT  
 6161  
 2688- 4A 6162 TYPE2A LSR A  
 2689- B0 23 6163 BCS TYPE4AC  
 268B- C9 0A 6164 CMP #\$0A  
 268D- F0 27 6165 BEQ OK.EXIT  
 268F- 50 29 6166 BVC BAD.EXIT  
 6167  
 2691- 4A 6168 TYPE0 LSR A  
 2692- B0 09 6169 BCS TYPE4C  
 2694- 4A 6170 LSR A  
 2695- B0 1F 6171 BCS OK.EXIT  
 2697- C9 08 6172 CMP #\$08  
 2699- F0 1F 6173 BEQ BAD.EXIT  
 269B- 50 19 6174 BVC OK.EXIT  
 6175  
 269D- 4A 6176 TYPE4C LSR A

269E- F0 1A 6177 BEQ BAD.EXIT  
 26A0- B0 08 6178 BCS TYPEC  
 26A2- 29 0D 6179 AND #\$0D  
 26A4- C9 04 6180 CMP #\$04  
 26A6- D0 06 6181 BNE TYPE4AC  
 26A8- 50 10 6182 BVC BAD.EXIT  
 6183  
 26AA- C9 09 6184 TYPEC CMP #\$09  
 26AC- F0 0C 6185 BEQ BAD.EXIT  
 6186  
 26AE- 4A 6187 TYPE4AC LSR A  
 26AF- 90 05 6188 BCC OK.EXIT  
 26B1- 4A 6189 LSR A  
 26B2- C9 02 6190 CMP #\$02  
 26B4- D0 04 6191 BNE BAD.EXIT  
 6192  
 26B6- A9 00 6193 OK.EXIT LDA #\$00  
 26B8- F0 02 6194 BEQ CHKRET  
 26BA- A9 01 6195 BAD.EXIT LDA #\$01  
 26BC- A6 B5 6196 CHKRET LDX \*XSAVE  
 26BE- 4C A2 06 6197 JMP PUSHOA  
 6198  
 6199 ; SETUP  
 6200  
 26C1- 85 53 45 6201 .BY \$85 'SETU' \$D0  
 26C4- 54 55 D0  
 26C7- 61 26 6202 .SI OPCHK-\$08  
 26C9- 48 09 6203 SETUP. .SI DOCON  
 26CB- 3E 03 6204 .SE SETUP  
 6205  
 6206 ; OPREL  
 6207  
 26CD- 85 4F 50 6208 .BY \$85 'OPRE' \$CC  
 26D0- 52 45 CC  
 26D3- C1 26 6209 .SI SETUP.-\$08  
 26D5- FC 08 6210 OPREL .SI DOCOL  
 26D7- 8D 11 6211 .SI CREAT  
 26D9- 2A 0B 6212 .SI CCOMM  
 26DB- EC 0D 6213 .SI PSCOD  
 26DD- 20 2B 0E 6214 DOOPREL JSR DODOES  
 26E0- B2 08 6215 .SI CAT  
 26E2- 2A 0B 6216 .SI CCOMM  
 26E4- 5E 08 6217 .SI DUP  
 26E6- 8F 02 6218 .SI CLIT  
 26E8- FF 6219 .BY \$FF  
 26E9- 18 OC 6220 .SI GREAT  
 26EB- 9B 03 6221 .SI ZBRAN  
 26ED- 31 00 6222 .SE OPREL2--  
 26EF- FD OA 6223 .SI HERE  
 26F1- E1 OA 6224 .SI ONEP  
 26F3- 3A 0B 6225 .SI SUB  
 26F5- 5E 08 6226 .SI DUP  
 26F7- 5E 08 6227 .SI DUP  
 26F9- 8F 02 6228 .SI CLIT  
 26FB- 80 6229 .BY \$80  
 26FC- 18 OC 6230 .SI GREAT  
 26FE- 46 08 6231 .SI SWAP  
 2700- 49 02 6232 .SI LIT

2702- 80 FF 6233 .SE \$FF80  
 2704- C2 0B 6234 .SI LESS  
 2706- 73 06 6235 .SI OR  
 2708- 9B 03 6236 .SI ZBRAN  
 270A- OF 00 6237 .SE OPREL1--  
 270C- 88 09 6238 .SI ZERO  
 270E- FD OA 6239 .SI HERE  
 2710- C1 08 6240 .SI STORE  
 2712- 90 09 6241 .SI ONE  
 2714- 8F 02 6242 .SI CLIT  
 2716- 1A 6243 .BY \$1A  
 2717- EB 0C 6244 .SI QERR  
 2719- 8F 02 6245 OPREL1 .SI CLIT  
 271B- FF 6246 .BY \$FF  
 271C- 5E 06 6247 .SI ANDD  
 271E- 2A 0B 6248 OPREL2 .SI CCOMM  
 2720- D2 06 6249 .SI SEMIS  
 6250  
 6251 ; BCC,  
 6252  
 2722- 84 42 43 6253 .BY \$84 'BCC' \$AC  
 2725- 43 AC  
 2727- CD 26 6254 .SI OPREL-\$08  
 2729- DD 26 6255 BCC. .SI DOOPREL  
 272B- 90 6256 .BY \$90  
 6257  
 6258 ; BCS,  
 6259  
 272C- 84 42 43 6260 .BY \$84 'BCS' \$AC  
 272F- 53 AC  
 2731- 22 27 6261 .SI BCC.-\$07  
 2733- DD 26 6262 BCS. .SI DOOPREL  
 2735- B0 6263 .BY \$B0  
 6264  
 6265 ; BEQ,  
 6266  
 2736- 84 42 45 6267 .BY \$84 'BEQ' \$AC  
 2739- 51 AC  
 273B- 2C 27 6268 .SI BCS.-\$07  
 273D- DD 26 6269 BEQ. .SI DOOPREL  
 273F- F0 6270 .BY \$FO  
 6271  
 6272 ; BNE,  
 6273  
 2740- 84 42 4E 6274 .BY \$84 'BNE' \$AC  
 2743- 45 AC  
 2745- 36 27 6275 .SI BEQ.-\$07  
 2747- DD 26 6276 BNE. .SI DOOPREL  
 2749- DO 6277 .BY \$DO  
 6278  
 6279 ; BMI,  
 6280  
 274A- 84 42 4D 6281 .BY \$84 'BMI' \$AC  
 274D- 49 AC  
 274F- 40 27 6282 .SI BNE.-\$07  
 2751- DD 26 6283 BMI. .SI DOOPREL  
 2753- 30 6284 .BY \$30  
 6285

	6286 ;	BPL,
	6287	
2754- 84 42 50	6288	.BY \$84 'BPL' \$AC
2757- 4C AC		
2759- 4A 27	6289	.SI BMI.-\$07
275B- DD 26	6290	BPL. .SI DOOPREL
275D- 10	6291	.BY \$10
	6292	
	6293 ;	BVC,
	6294	
275E- 84 42 56	6295	.BY \$84 'BVC' \$AC
2761- 43 AC		
2763- 54 27	6296	.SI BPL.-\$07
2765- DD 26	6297	BVC. .SI DOOPREL
2767- 50	6298	.BY \$50
	6299	
	6300 ;	BVS,
	6301	
2768- 84 42 56	6302	.BY \$84 'BVS' \$AC
276B- 53 AC		
276D- 5E 27	6303	.SI BVC.-\$07
276F- DD 26	6304	BVS. .SI DOOPREL
2771- 70	6305	.BY \$70
	6306	
	6307 ;	MODE
	6308	
2772- 84 4D 4F	6309	.BY \$84 'MOD' \$C5
2775- 44 C5		
2777- 68 27	6310	.SI BVS.-\$07
2779- FC 08	6311	MODE. .SI DOCOL
277B- 8D 11	6312	.SI CREAT
277D- 2A 0B	6313	.SI CCOMM
277F- EC 0D	6314	.SI PSCOD
2781- 20 2B 0E	6315	DOMODE JSR DODOES
2784- B2 08	6316	.SI CAT
2786- 8B 25	6317	.SI MVAR
2788- C1 08	6318	.SI STORE
278A- D2 06	6319	.SI SEMIS
	6320	
	6321 ;	IM,
	6322	
278C- 83 49 4D	6323	.BY \$83 'IM' \$AC
278F- AC		
2790- 72 27	6324	.SI MODE.-\$07
2792- 81 27	6325	IM. .SI DOMODE
2794- 09	6326	.BY \$09
	6327	
	6328 ;	AB,
	6329	
2795- 83 41 42	6330	.BY \$83 'AB' \$AC
2798- AC		
2799- 8C 27	6331	.SI IM.-\$06
279B- 81 27	6332	AB. .SI DOMODE
279D- OD	6333	.BY \$0D
	6334	
	6335 ;	ZP,
	6336	
279E- 83 5A 50	6337	.BY \$83 'ZP' \$AC

	27A1- AC	
	27A2- 95 27	6338 .SI AB.-\$06
	27A4- 81 27	6339 ZP. .SI DOMODE
	27A6- 05	.BY \$05
		6341
		6342 ; IX,
		6343
	27A7- 83 49 58	6344 .BY \$83 'IX' \$AC
	27AA- AC	
	27AB- 9E 27	6345 .SI ZP.-\$06
	27AD- 81 27	6346 IX. .SI DOMODE
	27AF- 01	.BY \$01
		6348
		6349 ; IY,
		6350
	27B0- 83 49 59	6351 .BY \$83 'IY' \$AC
	27B3- AC	
	27B4- A7 27	6352 .SI IX.-\$06
	27B6- 81 27	6353 IY. .SI DOMODE
	27B8- 11	.BY \$11
		6355
		6356 ; AX,
		6357
	27B9- 83 41 58	6358 .BY \$83 'AX' \$AC
	27BC- AC	
	27BD- B0 27	6359 .SI IY.-\$06
	27BF- 81 27	6360 AX. .SI DOMODE
	27C1- 1D	.BY \$1D
		6362
		6363 ; AY,
		6364
	27C2- 83 41 59	6365 .BY \$83 'AY' \$AC
	27C5- AC	
	27C6- B9 27	6366 .SI AX.-\$06
	27C8- 81 27	6367 AY. .SI DOMODE
	27CA- 19	.BY \$19
		6369
		6370 ; ZX,
		6371
	27CB- 83 5A 58	6372 .BY \$83 'ZX' \$AC
	27CE- AC	
	27CF- C2 27	6373 .SI AY.-\$06
	27D1- 81 27	6374 ZX. .SI DOMODE
	27D3- 15	.BY \$15
		6376
		6377 ; ZY,
		6378
	27D4- 83 5A 59	6379 .BY \$83 'ZY' \$AC
	27D7- AC	
	27D8- CB 27	6380 .SI ZX.-\$06
	27DA- 81 27	6381 ZY. .SI DOMODE
	27DC- 15	.BY \$15
		6383
		6384 ; X,
		6385
	27DD- 82 58 AC	6386 .BY \$82 'X' \$AC
	27E0- D4 27	6387 .SI ZY.-\$06
	27E2- 81 27	.SI DOMODE

27E4- 1D	6389	.BY \$1D
	6390	
	6391 ;	Y,
	6392	
27E5- 82 59 AC	6393	.BY \$82 'Y' \$AC
27E8- DD 27	6394	.SI X.-\$05
27EA- 81 27	6395	.SI DOMODE
27EC- 19	6396	.BY \$19
	6397	
	6398 ;	EXCODE
	6399	
27ED- 86 45 58	6400	.BY \$86 'EXCOD' \$C5
27F0- 43 4F 44		
27F3- C5		
27F4- E5 27	6401	.SI Y.-\$05
27F6- FC 08	6402	EXCODE .SI DOCOL
27F8- 8B 25	6403	.SI MVAR
27FA- 9D 08	6404	.SI AT
27FC- 5E 08	6405	.SI DUP
27FE- 8F 02	6406	.SI CLIT
2800- 1D	6407	.BY \$1D
2801- 8B 0B	6408	.SI EQUAL
2803- 2C 08	6409	.SI OVER
2805- 8F 02	6410	.SI CLIT
2807- OD	6411	.BY \$OD
2808- 8B 0B	6412	.SI EQUAL
280A- 73 06	6413	.SI OR
280C- 9B 03	6414	.SI ZBRAN
280E- 1D 00	6415	.SE EXCODE1==
2810- A0 09	6416	.SI THREE
2812- 88 1D	6417	.SI PICK
2814- 49 02	6418	.SI LIT
2816- 00 FF	6419	.SE \$FFOO
2818- 5E 06	6420	.SI ANDD
281A- 53 07	6421	.SI ZEQU
281C- 9B 03	6422	.SI ZBRAN
281E- OD 00	6423	.SE EXCODE1==
2820- 5E 08	6424	.SI DUP
2822- 8F 02	6425	.SI CLIT
2824- 08	6426	.BY \$08
2825- 3A 0B	6427	.SI SUB
2827- 8B 25	6428	.SI MVAR
2829- C1 08	6429	.SI STORE
282B- 3D 08	6430	EXCODE1 .SI DROP
282D- 8B 25	6431	.SI MVAR
282F- 9D 08	6432	.SI AT
2831- 46 08	6433	.SI SWAP
2833- B2 08	6434	.SI CAT
2835- 2C 08	6435	.SI OVER
2837- 90 07	6436	.SI PLUS
2839- 69 26	6437	.SI OPCHK
283B- 8F 02	6438	.SI CLIT
283D- 1B	6439	.BY \$1B
283E- EB OC	6440	.SI QERR
2840- 2A 0B	6441	.SI CCOMM
2842- 5E 08	6442	.SI DUP
2844- 8F 02	6443	.SI CLIT
2846- OD	6444	.BY \$OD

2847- 8B 0B	6445	.SI EQUAL
2849- 46 08	6446	.SI SWAP
284B- 8F 02	6447	.SI CLIT
284D- 18	6448	.BY \$18
284E- 18 0C	6449	.SI GREAT
2850- 73 06	6450	.SI OR
2852- 9B 03	6451	.SI ZBRAN
2854- 08 00	6452	.SE EXCODE2==
2856- 19 0B	6453	.SI COMMA
2858- 7C 03	6454	.SI BRAN
285A- 04 00	6455	.SE EXCODE3==
285C- 2A 0B	6456	EXCODE2 .SI CCOMM
285E- 97 25	6457	EXCODE3 .SI SMVAR
2860- D2 06	6458	.SI SEMIS
	6459	
	6460 ;	OPCODE
	6461	
2862- 86 4F 50	6462	.BY \$86 'OPCOD' \$C5
2865- 43 4F 44		
2868- C5		
2869- ED 27	6463	.SI EXCODE-\$09
286B- FC 08	6464	OPCODE .SI DOCOL
286D- 8D 11	6465	.SI CREAT
286F- 2A 0B	6466	.SI CCOMM
2871- EC 0D	6467	.SI PSCOD
2873- 20 2B 0E	6468	DOOPCODE JSR DODOES
2876- F6 27	6469	.SI EXCODE
2878- D2 06	6470	.SI SEMIS
	6471	
	6472 ;	OPXY
	6473	
287A- 84 4F 50	6474	.BY \$84 'OPX' \$D9
287D- 58 D9		
287F- 62 28	6475	.SI OPCODE-\$09
2881- FC 08	6476	OPXY .SI DOCOL
2883- 8D 11	6477	.SI CREAT
2885- 19 0B	6478	.SI COMMA
2887- EC 0D	6479	.SI PSCOD
2889- 20 2B 0E	6480	DOOPXY JSR DODOES
288C- 8B 25	6481	.SI MVAR
288E- 9D 08	6482	.SI AT
2890- 5E 08	6483	.SI DUP
2892- 8F 02	6484	.SI CLIT
2894- 09	6485	.BY \$09
2895- 8B 0B	6486	.SI EQUAL
2897- 9B 03	6487	.SI ZBRAN
2899- 08 00	6488	.SE OPXY1==
289B- 90 09	6489	.SI ONE
289D- 8B 25	6490	.SI MVAR
289F- C1 08	6491	.SI STORE
28A1- 8F 02	6492	OPXY1 .SI CLIT
28A3- 19	6493	.BY \$19
28A4- 8B 0B	6494	.SI EQUAL
28A6- 9B 03	6495	.SI ZBRAN
28A8- 04 00	6496	.SE OPXY2==
28AA- E1 0A	6497	.SI ONEP
28AC- F6 27	6498	OPXY2 .SI EXCODE
28AE- D2 06	6499	.SI SEMIS

6500  
 6501 .CT 1FTH65  
 6502 ;  
 6503 ;\*\*\*\*\*  
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 6512 ;\*\*\*\*\*  
 6513 ;  
 6514 ;  
 6515 ;\*\*\*\*\*  
 6516 ;\*\* SYM/KIM-FORTH PART 12 \*\*  
 6517 ;\*\* DISK FILE FTH65 \*\*  
 6518 ;\*\*\*\*\*  
 6519 ;  
 6520 ;\*\* ASSEMBLER DEFINITIONS CONTINUED  
 6521 ;  
 6522 ; ADC,  
 6523 ;  
 28B0- 84 41 44 6524 .BY \$84 'ADC' \$AC  
 28B3- 43 AC  
 28B5- 7A 28 6525 .SI OPXY-\$07  
 28B7- 73 28 6526 ADC. .SI DOOPCODE  
 28B9- 60 6527 .BY \$60  
 6528 ;  
 6529 ; AND,  
 6530 ;  
 28BA- 84 41 4E 6531 .BY \$84 'AND' \$AC  
 28BD- 44 AC  
 28BF- B0 28 6532 .SI ADC.-\$07  
 28C1- 73 28 6533 AND. .SI DOOPCODE  
 28C3- 20 6534 .BY \$20  
 6535 ;  
 6536 ; ASL,  
 6537 ;  
 28C4- 84 41 53 6538 .BY \$84 'ASL' \$AC  
 28C7- 4C AC  
 28C9- BA 28 6539 .SI AND.-\$07  
 28CB- 73 28 6540 ASL. .SI DOOPCODE  
 28CD- 01 6541 .BY \$01  
 6542 ;  
 6543 ; BIT,  
 6544 ;  
 28CE- 84 42 49 6545 .BY \$84 'BIT' \$AC  
 28D1- 54 AC  
 28D3- C4 28 6546 .SI ASL.-\$07  
 28D5- 73 28 6547 BIT. .SI DOOPCODE  
 28D7- 1F 6548 .BY \$1F  
 6549 ;  
 6550 ; CMP,

6551  
 28D8- 84 43 4D 6552 .BY \$84 'CMP' \$AC  
 28DB- 50 AC  
 28DD- CE 28 6553 .SI BIT.-\$07  
 28DF- 73 28 6554 CMP. .SI DOOPCODE  
 28E1- CO 6555 .BY \$CO  
 6556 ;  
 6557 ; DEC,  
 6558 ;  
 28E2- 84 44 45 6559 .BY \$84 'DEC' \$AC  
 28E5- 43 AC  
 28E7- D8 28 6560 .SI CMP.-\$07  
 28E9- 73 28 6561 DEC. .SI DOOPCODE  
 28EB- C1 6562 .BY \$C1  
 6563 ;  
 6564 ; EOR,  
 6565 ;  
 28EC- 84 45 4F 6566 .BY \$84 'EOR' \$AC  
 28EF- 52 AC  
 28F1- E2 28 6567 .SI DEC.-\$07  
 28F3- 73 28 6568 EOR. .SI DOOPCODE  
 28F5- 40 6569 .BY \$40  
 6570 ;  
 6571 ; INC,  
 6572 ;  
 28F6- 84 49 4E 6573 .BY \$84 'INC' \$AC  
 28F9- 43 AC  
 28FB- EC 28 6574 .SI EOR.-\$07  
 28FD- 73 28 6575 INC. .SI DOOPCODE  
 28FF- E1 6576 .BY \$E1  
 6577 ;  
 6578 ; LDA,  
 6579 ;  
 2900- 84 4C 44 6580 .BY \$84 'LDA' \$AC  
 2903- 41 AC  
 2905- F6 28 6581 .SI INC.-\$07  
 2907- 73 28 6582 LDA. .SI DOOPCODE  
 2909- A0 6583 .BY \$AO  
 6584 ;  
 6585 ; LSR,  
 6586 ;  
 290A- 84 4C 53 6587 .BY \$84 'LSR' \$AC  
 290D- 52 AC  
 290F- 00 29 6588 .SI LDA.-\$07  
 2911- 73 28 6589 LSR. .SI DOOPCODE  
 2913- 41 6590 .BY \$41  
 6591 ;  
 6592 ; ORA,  
 6593 ;  
 2914- 84 4F 52 6594 .BY \$84 'ORA' \$AC  
 2917- 41 AC  
 2919- 0A 29 6595 .SI LSR.-\$07  
 291B- 73 28 6596 ORA. .SI DOOPCODE  
 291D- 00 6597 .BY \$00  
 6598 ;  
 6599 ; ROL,  
 6600 ;  
 291E- 84 52 4F 6601 .BY \$84 'ROL' \$AC

2921- 4C AC  
 2923- 14 29 6602 .SI ORA.-\$07  
 2925- 73 28 6603 ROL. .SI DOOPCODE  
 2927- 21 6604 .BY \$21  
 6605  
 6606 ; ROR,  
 6607  
 2928- 84 52 4F 6608 .BY \$84 'ROR' \$AC  
 292B- 52 AC  
 292D- 1E 29 6609 .SI ROL.-\$07  
 292F- 73 28 6610 ROR. .SI DOOPCODE  
 2931- 61 6611 .BY \$61  
 6612  
 6613 ; SBC,  
 6614  
 2932- 84 53 42 6615 .BY \$84 'SBC' \$AC  
 2935- 43 AC  
 2937- 28 29 6616 .SI ROR.-\$07  
 2939- 73 28 6617 SBC. .SI DOOPCODE  
 293B- E0 6618 .BY \$EO  
 6619  
 6620 ; STA,  
 6621  
 293C- 84 53 54 6622 .BY \$84 'STA' \$AC  
 293F- 41 AC  
 2941- 32 29 6623 .SI SBC.-\$07  
 2943- 73 28 6624 STA. .SI DOOPCODE  
 2945- 80 6625 .BY \$80  
 6626  
 6627 ; STX,  
 6628  
 2946- 84 53 54 6629 .BY \$84 'STX' \$AC  
 2949- 58 AC  
 294B- 3C 29 6630 .SI STA.-\$07  
 294D- 73 28 6631 STX. .SI DOOPCODE  
 294F- 81 6632 .BY \$81  
 6633  
 6634 ; STY,  
 6635  
 2950- 84 53 54 6636 .BY \$84 'STY' \$AC  
 2953- 59 AC  
 2955- 46 29 6637 .SI STX.-\$07  
 2957- 73 28 6638 STY. .SI DOOPCODE  
 2959- 7F 6639 .BY \$7F  
 6640  
 6641 ; CPX,  
 6642  
 295A- 84 43 50 6643 .BY \$84 'CPX' \$AC  
 295D- 58 AC  
 295F- 50 29 6644 .SI STY.-\$07  
 2961- 89 28 6645 CPX. .SI DOOPXY  
 2963- DF E3 6646 .SE \$E3DF  
 6647  
 6648 ; LDX,  
 6649  
 2965- 84 4C 44 6650 .BY \$84 'LDX' \$AC  
 2968- 58 AC  
 296A- 5A 29 6651 .SI CPX.-\$07

296C- 89 28 6652 LDX. .SI DOOPXY  
 296E- A1 A5 6653 .SE \$A5A1  
 6654  
 6655 ; CPY,  
 6656  
 2970- 84 43 50 6657 .BY \$84 'CPY' \$AC  
 2973- 59 AC  
 2975- 65 29 6658 .SI LDX.-\$07  
 2977- 89 28 6659 CPY. .SI DOOPXY  
 2979- BF C3 6660 .SE \$C3BF  
 6661  
 6662 ; LDY,  
 6663  
 297B- 84 4C 44 6664 .BY \$84 'LDY' \$AC  
 297E- 59 AC  
 2980- 70 29 6665 .SI CPY.-\$07  
 2982- 89 28 6666 LDY. .SI DOOPXY  
 2984- 9F A3 6667 .SE \$A39F.  
 6668  
 6669 ; OPBYT  
 6670  
 2986- 85 4F 50 6671 .BY \$85 'OPBY' \$D4  
 2989- 42 59 D4  
 298C- 7B 29 6672 .SI LDY.-\$07  
 298E- FC 08 6673 OPBYT .SI DOCOL  
 2990- 8D 11 6674 .SI CREAT  
 2992- 2A 08 6675 .SI CCOMM  
 2994- EC 0D 6676 .SI PSCOD  
 2996- 20 2B 0E 6677 DOOPBYT JSR DODOES  
 2999- B2 08 6678 .SI CAT  
 299B- 2A 08 6679 .SI CCOMM  
 299D- D2 06 6680 .SI SEMIS  
 6681  
 6682 ; ASLA,  
 6683  
 299F- 85 41 53 6684 .BY \$85 'ASLA' \$AC  
 29A2- 4C 41 AC  
 29A5- 86 29 6685 .SI OPBYT-\$08  
 29A7- 96 29 6686 ASLA. .SI DOOPBYT  
 29A9- 0A 6687 .BY \$0A  
 6688  
 6689 ; LSRA,  
 6690  
 29AA- 85 4C 53 6691 .BY \$85 'LSRA' \$AC  
 29AD- 52 41 AC  
 29B0- 9F 29 6692 .SI ASLA.-\$08  
 29B2- 96 29 6693 LSRA. .SI DOOPBYT  
 29B4- 4A 6694 .BY \$4A  
 6695  
 6696 ; ROLA,  
 6697  
 29B5- 85 52 4F 6698 .BY \$85 'ROLA' \$AC  
 29B8- 4C 41 AC  
 29BB- AA 29 6699 .SI LSRA.-\$08  
 29BD- 96 29 6700 ROLA. .SI DOOPBYT  
 29BF- 2A 6701 .BY \$2A  
 6702  
 6703 ; RORA,

	6704	
29C0-	85 52 4F	6705 .BY \$85 'RORA' \$AC
29C3-	52 41 AC	
29C6-	B5 29	6706 .SI ROLA.-\$08
29C8-	96 29	6707 RORA. .SI DOOPBYT
29CA-	6A	6708 .BY \$6A
	6709	
	6710 ;	CLC,
	6711	
29CB-	84 43 4C	6712 .BY \$84 'CLC' \$AC
29CE-	43 AC	
29DO-	CO 29	6713 .SI RORA.-\$08
29D2-	96 29	6714 CLC. .SI DOOPBYT
29D4-	18	6715 .BY \$18
	6716	
	6717 ;	CLD,
	6718	
29D5-	84 43 4C	6719 .BY \$84 'CLD' \$AC
29D8-	44 AC	
29DA-	CB 29	6720 .SI CLC.-\$07
29DC-	96 29	6721 CLD. .SI DOOPBYT
29DE-	D8	6722 .BY \$D8
	6723	
	6724 ;	CLI,
	6725	
29DF-	84 43 4C	6726 .BY \$84 'CLI' \$AC
29E2-	49 AC	
29E4-	D5 29	6727 .SI CLD.-\$07
29E6-	96 29	6728 CLI. .SI DOOPBYT
29E8-	58	6729 .BY \$58
	6730	
	6731 ;	CLV,
	6732	
29E9-	84 43 4C	6733 .BY \$84 'CLV' \$AC
29EC-	56 AC	
29EE-	DF 29	6734 .SI CLI.-\$07
29FO-	96 29	6735 CLV. .SI DOOPBYT
29F2-	B8	6736 .BY \$B8
	6737	
	6738 ;	DEX,
	6739	
29F3-	84 44 45	6740 .BY \$84 'DEX' \$AC
29F6-	58 AC	
29F8-	E9 29	6741 .SI CLV.-\$07
29FA-	96 29	6742 DEX. .SI DOOPBYT
29FC-	CA	6743 .BY \$CA
	6744	
	6745 ;	DEY,
	6746	
29FD-	84 44 45	6747 .BY \$84 'DEY' \$AC
2A00-	59 AC	
2A02-	F3 29	6748 .SI DEX.-\$07
2A04-	96 29	6749 DEY. .SI DOOPBYT
2A06-	88	6750 .BY \$88
	6751	
	6752 ;	INX,
	6753	
2A07-	84 49 4E	6754 .BY \$84 'INX' \$AC

	2A0A-	58 AC	
	2A0C-	FD 29	6755 .SI DEY.-\$07
	2A0E-	96 29	6756 INX. .SI DOOPBYT
	2A10-	E8	6757 .BY \$E8
			6758
			6759 ; INX,
			6760
	2A11-	84 49 4E	6761 .BY \$84 'INX' \$AC
	2A14-	59 AC	
	2A16-	07 2A	6762 .SI INX.-\$07
	2A18-	96 29	6763 INX. .SI DOOPBYT
	2A1A-	C8	6764 .BY \$C8
			6765
			6766 ; NOP,
			6767
	2A1B-	84 4E 4F	6768 .BY \$84 'NOP' \$AC
	2A1E-	50 AC	
	2A20-	11 2A	6769 .SI INX.-\$07
	2A22-	96 29	6770 NOP. .SI DOOPBYT
	2A24-	EA	6771 .BY \$EA
			6772
			6773 ; PHA,
			6774
	2A25-	84 50 48	6775 .BY \$84 'PHA' \$AC
	2A28-	41 AC	
	2A2A-	1B 2A	6776 .SI NOP.-\$07
	2A2C-	96 29	6777 PHA. .SI DOOPBYT
	2A2E-	48	6778 .BY \$48
			6779
			6780 ; PHP,
			6781
	2A2F-	84 50 48	6782 .BY \$84 'PHP' \$AC
	2A32-	50 AC	
	2A34-	25 2A	6783 .SI PHA.-\$07
	2A36-	96 29	6784 PHP. .SI DOOPBYT
	2A38-	08	6785 .BY \$08
			6786
			6787 ; PLA,
			6788
	2A39-	84 50 4C	6789 .BY \$84 'PLA' \$AC
	2A3C-	41 AC	
	2A3E-	2F 2A	6790 .SI PHP.-\$07
	2A40-	96 29	6791 PLA. .SI DOOPBYT
	2A42-	68	6792 .BY \$68
			6793
			6794 ; PLP,
			6795
	2A43-	84 50 4C	6796 .BY \$84 'PLP' \$AC
	2A46-	50 AC	
	2A48-	39 2A	6797 .SI PLA.-\$07
	2A4A-	96 29	6798 PLP. .SI DOOPBYT
	2A4C-	28	6799 .BY \$28
			6800
			6801 ; RTI,
			6802
	2A4D-	84 52 54	6803 .BY \$84 'RTI' \$AC
	2A50-	49 AC	
	2A52-	43 2A	6804 .SI PLP.-\$07

2A54- 96 29 6805 RTI. .SI DOOPBYT  
 2A56- 40 6806 .BY \$40  
 6807  
 6808 ; RTS,  
 6809  
 2A57- 84 52 54 6810 .BY \$84 'RTS' \$AC  
 2A5A- 53 AC  
 2A5C- 4D 2A 6811 .SI RTI.-\$07  
 2A5E- 96 29 6812 RTS. .SI DOOPBYT  
 2A60- 60 6813 .BY \$60  
 6814  
 6815 ; BRK,  
 6816  
 2A61- 84 42 52 6817 .BY \$84 'BRK' \$AC  
 2A64- 4B AC  
 2A66- 57 2A 6818 .SI RTS.-\$07  
 2A68- 96 29 6819 BRK.  
 2A6A- 00 6820 .BY \$00  
 6821  
 6822 ; SEC,  
 6823  
 2A6B- 84 53 45 6824 .BY \$84 'SEC' \$AC  
 2A6E- 43 AC  
 2A70- 61 2A 6825 .SI BRK.-\$07  
 2A72- 96 29 6826 SEC. .SI DOOPBYT  
 2A74- 38 6827 .BY \$38  
 6828  
 6829 ; SED,  
 6830  
 2A75- 84 53 45 6831 .BY \$84 'SED' \$AC  
 2A78- 44 AC  
 2A7A- 6B 2A 6832 .SI SEC.-\$07  
 2A7C- 96 29 6833 SED. .SI DOOPBYT  
 2A7E- F8 6834 .BY \$F8  
 6835  
 6836 ; SEI,  
 6837  
 2A7F- 84 53 45 6838 .BY \$84 'SEI' \$AC  
 2A82- 49 AC  
 2A84- 75 2A 6839 .SI SED.-\$07  
 2A86- 96 29 6840 SEI. .SI DOOPBYT  
 2A88- 78 6841 .BY \$78  
 6842  
 6843 ; TAX,  
 6844  
 2A89- 84 54 41 6845 .BY \$84 'TAX' \$AC  
 2A8C- 58 AC  
 2A8E- 7F 2A 6846 .SI SEI.-\$07  
 2A90- 96 29 6847 TAX. .SI DOOPBYT  
 2A92- AA 6848 .BY \$AA  
 6849  
 6850 ; TAY,  
 6851  
 2A93- 84 54 41 6852 .BY \$84 'TAY' \$AC  
 2A96- 59 AC  
 2A98- 89 2A 6853 .SI TAX.-\$07  
 2A9A- 96 29 6854 TAY. .SI DOOPBYT  
 2A9C- A8 6855 .BY \$A8

6856  
 6857 ; TSX,  
 6858  
 2A9D- 84 54 53 6859 .BY \$84 'TSX' \$AC  
 2AA0- 58 AC  
 2AA2- 93 2A 6860 .SI TAY.-\$07  
 2AA4- 96 29 6861 TSX. .SI DOOPBYT  
 2AA6- BA 6862 .BY \$BA  
 6863  
 6864 ; TXA,  
 6865  
 2AA7- 84 54 58 6866 .BY \$84 'TXA' \$AC  
 2AAA- 41 AC  
 2AAC- 9D 2A 6867 .SI TSX.-\$07  
 2AAE- 96 29 6868 TXA. .SI DOOPBYT  
 2AB0- 8A 6869 .BY \$8A  
 6870  
 6871 ; TXS,  
 6872  
 2AB1- 84 54 58 6873 .BY \$84 'TXS' \$AC  
 2AB4- 53 AC  
 2AB6- A7 2A 6874 .SI TXA.-\$07  
 2AB8- 96 29 6875 TXS. .SI DOOPBYT  
 2ABA- 9A 6876 .BY \$9A  
 6877  
 6878 ; TYA,  
 6879  
 2ABE- 84 54 59 6880 .BY \$84 'TYA' \$AC  
 2ABE- 41 AC  
 2AC0- B1 2A 6881 .SI TXS.-\$07  
 2AC2- 96 29 6882 TYA. .SI DOOPBYT  
 2AC4- 98 6883 .BY \$98  
 6884  
 6885 ; JMP,  
 6886  
 2AC5- 84 4A 4D 6887 .BY \$84 'JMP' \$AC  
 2AC8- 50 AC  
 2ACA- BB 2A 6888 .SI TYA.-\$07  
 2ACC- FC 08 6889 JMP. .SI DOCOL  
 2ACE- 8F 02 6890 .SI CLIT  
 2ADO- 4C 6891 .BY \$4C  
 2AD1- 2A 0B 6892 .SI CCOMM  
 2AD3- 19 0B 6893 .SI COMMA  
 2AD5- D2 06 6894 .SI SEMIS  
 6895  
 6896 ; JMI,  
 6897  
 2AD7- 84 4A 4D 6898 .BY \$84 'JMI' \$AC  
 2ADA- 49 AC  
 2ADC- C5 2A 6899 .SI JMP.-\$07  
 2ADE- FC 08 6900 JMI. .SI DOCOL  
 2AE0- 8F 02 6901 .SI CLIT  
 2AE2- 6C 6902 .BY \$6C  
 2AE3- 2A 0B 6903 .SI CCOMM  
 2AE5- 19 0B 6904 .SI COMMA  
 2AE7- D2 06 6905 .SI SEMIS  
 6906  
 6907 ; JSR,

2AE9- 84 4A 53	6908	
2AEC- 52 AC	6909	.BY \$84 'JSR' \$AC
2AEE- D7 2A	6910	.SI JMI.-\$07
2AF0- FC 08	6911	JSR.
2AF2- 8F 02	6912	.SI DOCOL
2AF4- 20	6913	.SI CLIT
2AF5- 2A 0B	6914	.BY \$20
2AF7- 19 OB	6915	.SI CCOMM
2AF9- D2 06	6916	.SI COMMA
	6917	.SI SEMIS
	6918 ;	NOT,
	6919	
2AFB- 84 4E 4F	6920	.BY \$84 'NOT' \$AC
2AFE- 54 AC		
2B00- E9 2A	6921	.SI JSR.-\$07
2B02- FC 08	6922	NOT.
2B04- 8F 02	6923	.SI DOCOL
2B06- 20	6924	.SI CLIT
2B07- 89 06	6925	.BY \$20
2B09- D2 06	6926	.SI XOR
	6927	.SI SEMIS
	6928 ;	BEGIN,
	6929	
2BOB- 86 42 45	6930	.BY \$86 'BEGIN' \$AC
2BOE- 47 49 4E		
2B11- AC		
2B12- FB 2A	6931	.SI NOT.-\$07
2B14- FC 08	6932	BEGIN.
2B16- FD 0A	6933	.SI DOCOL
2B18- 90 09	6934	.SI HERE
2B1A- D2 06	6935	.SI ONE
	6936	.SI SEMIS
	6937 ;	UNTIL,
	6938	
2B1C- 86 55 4E	6939	.BY \$86 'UNTIL' \$AC
2B1F- 54 49 4C		
2B22- AC		
2B23- OB 2B	6940	.SI BEGIN.-\$09
2B25- FC 08	6941	UNTIL.
2B27- 46 08	6942	.SI DOCOL
2B29- 90 09	6943	.SI SWAP
2B2B- 32 0D	6944	.SI ONE
2B2D- 02 2B	6945	.SI QPAIR
2B2F- 2A 0B	6946	.SI NOT.
2B31- FD 0A	6947	.SI CCOMM
2B33- 3A 0B	6948	.SI SEMIS
2B35- 54 0B	6949	.SI HERE
2B37- 2A 0B	6950	.SI SUB
2B39- D2 06	6951	.SI ONESB
	6952	.SI CCOMM
	6953 ;	AGAIN,
	6954	
2B3B- 86 41 47	6955	.BY \$86 'AGAIN' \$AC
2B3E- 41 49 4E		
2B41- AC		
2B42- 1C 2B	6956	.SI UNTIL.-\$09
2B44- FC 08	6957	AGAIN.

2B46- 90 09	6958	.SI ONE
2B48- 32 0D	6959	.SI QPAIR
2B4A- CC 2A	6960	.SI JMP.
2B4C- D2 06	6961	.SI SEMIS
	6962	
	6963 ;	IF,
	6964	
2B4E- 83 49 46	6965	.BY \$83 'IF' \$AC
2B51- AC		
2B52- 3B 2B	6966	.SI AGAIN.-\$09
2B54- FC 08	6967	IF.
2B56- 02 2B	6968	.SI DOCOL
2B58- 2A 0B	6969	.SI NOT.
2B5A- FD 0A	6970	.SI CCOMM
2B5C- 88 09	6971	.SI HERE
2B5E- 2A 0B	6972	.SI ZERO
2B60- 98 09	6973	.SI CCOMM
2B62- D2 06	6974	.SI TWO
	6975	.SI SEMIS
	6976 ;	ELSE,
	6977	
2B64- 85 45 4C	6978	.BY \$85 'ELSE' \$AC
2B67- 53 45 AC		
2B6A- 4E 2B	6979	.SI IF.-\$06
2B6C- FC 08	6980	ELSE.
2B6E- 98 09	6981	.SI DOCOL
2B70- 32 0D	6982	.SI TWO
2B72- 8F 02	6983	.SI QPAIR
2B74- B8	6984	.SI CLIT
2B75- 2A 0B	6985	.BY \$B8
2B77- 8F 02	6986	.SI CCOMM
2B79- 50	6987	.SI CLIT
2B7A- 2A 0B	6988	.BY \$50
2B7C- FD 0A	6989	.SI CCOMM
2B7E- 88 09	6990	.SI HERE
2B80- 2A 0B	6991	.SI ZERO
2B82- 2C 08	6992	.SI CCOMM
2B84- FD 0A	6993	.SI OVER
2B86- 46 08	6994	.SI HERE
2B88- 3A 0B	6995	.SI SWAP
2B8A- 54 0B	6996	.SI SUB
2B8C- 26 0C	6997	.SI ONESB
2B8E- D9 08	6998	.SI ROT
2B90- 98 09	6999	.SI CSTOR
2B92- D2 06	7000	.SI TWO
	7001	.SI SEMIS
	7002 ;	THEN,
	7003	
2B94- 85 54 48	7004	.BY \$85 'THEN' \$AC
2B97- 45 4B AC		
2B9A- 64 2B	7005	.SI ELSE.-\$08
2B9C- FC 08	7006	THEN.
2B9E- 98 09	7007	.SI DOCOL
2BA0- 32 0D	7008	.SI TWO
2BA2- FD 0A	7009	.SI QPAIR
2BA4- 2C 08	7010	.SI HERE
2BA6- 3A 0B	7011	.SI OVER
2BA8- 54 0B	7012	.SI SUB
		.SI ONESB

2BAA- 46 08 7013 .SI SWAP  
 2BAC- D9 08 7014 .SI CSTOR  
 2BAE- D2 06 7015 .SI SEMIS  
 7016  
 7017 ; WHILE,  
 7018  
 2BB0- 86 57 48 7019 .BY \$86 'WHILE' \$AC  
 2BB3- 49 4C 45  
 2BB6- AC  
 2BB7- 94 2B 7020 .SI THEN.-\$08  
 2BB9- FC 08 7021 WHILE. .SI DOCOL  
 2BBB- 46 08 7022 .SI SWAP  
 2BBD- 90 09 7023 .SI ONE  
 2BBF- 32 0D 7024 .SI QPAIR  
 2BC1- 54 2B 7025 .SI IF.  
 2BC3- EE OA 7026 .SI TWOP  
 2BC5- D2 06 7027 .SI SEMIS  
 7028  
 7029 ; REPEAT,  
 7030  
 2BC7- 87 52 45 7031 .BY \$87 'REPEAT' \$AC  
 2BCA- 50 45 41  
 2BCD- 54 AC  
 2BCF- B0 2B 7032 .SI WHILE.-\$09  
 2BD1- FC 08 7033 REPEAT. .SI DOCOL  
 2BD3- 8F 02 7034 .SI CLIT  
 2BD5- 04 7035 .BY \$04  
 2BD6- 32 0D 7036 .SI QPAIR  
 2BD8- 8F 02 7037 .SI CLIT  
 2BDA- B8 7038 .BY \$B8  
 2BDB- 2A 0B 7039 .SI CCOMM  
 2BDD- 8F 02 7040 .SI CLIT  
 2BDF- 50 7041 .BY \$50  
 2BE0- 2A 0B 7042 .SI CCOMM  
 2BE2- FD 0A 7043 .SI HERE  
 2BE4- 2C 08 7044 .SI OVER  
 2BE6- 3A 0B 7045 .SI SUB  
 2BE8- 46 08 7046 .SI SWAP  
 2BEA- D9 08 7047 .SI CSTOR  
 2BEC- FD 0A 7048 .SI HERE  
 2BEE- 3A 0B 7049 .SI SUB  
 2BF0- 54 0B 7050 .SI ONESB  
 2BF2- 2A 0B 7051 .SI CCOMM  
 2BF4- D2 06 7052 .SI SEMIS  
 7053  
 7054 ; 0<,  
 7055  
 2BF6- 83 30 3C 7056 .BY \$83 '0<' \$AC  
 2BF9- AC  
 2BFA- C7 2B 7057 .SI REPEAT.-\$0A  
 2BFC- 48 09 7058 ZL. .SI DOCON  
 2BFE- 30 00 7059 .SE \$0030  
 7060  
 7061 ; 0>,  
 7062  
 2C00- 83 30 3E 7063 .BY \$83 '0>' \$AC  
 2C03- AC  
 2C04- F6 2B 7064 .SI ZL.-\$06

2C06- 48 09 7065 ZG. .SI DOCON  
 2C08- 10 00 7066 .SE \$0010  
 7067  
 7068 ; 0=,  
 7069  
 2C0A- 83 30 3D 7070 .BY \$83 '0=' \$AC  
 2C0D- AC  
 2C0E- 00 2C 7071 .SI ZG.-\$06  
 2C10- 48 09 7072 ZE. .SI DOCON  
 2C12- F0 00 7073 .SE \$00FO  
 7074  
 7075 ; CS,  
 7076  
 2C14- 83 43 53 7077 .BY \$83 'CS' \$AC  
 2C17- AC  
 2C18- 0A 2C 7078 .SI ZE.-\$06  
 2C1A- 48 09 7079 CS. .SI DOCON  
 2C1C- B0 00 7080 .SE \$00BO  
 7081  
 7082 ; CC,  
 7083  
 2C1E- 83 43 43 7084 .BY \$83 'CC' \$AC  
 2C21- AC  
 2C22- 14 2C 7085 .SI CS.-\$06  
 2C24- 48 09 7086 CC. .SI DOCON  
 2C26- 90 00 7087 .SE \$0090  
 7088  
 7089 ; 0<,  
 7090  
 2C28- 84 30 3C 7091 .BY \$84 '0<' \$AC  
 2C2B- 3E AC  
 2C2D- 1E 2C 7092 .SI CC.-\$06  
 2C2F- 48 09 7093 ZNE. .SI DOCON  
 2C31- D0 00 7094 .SE \$00DO  
 7095  
 7096 ; TOP  
 7097  
 2C33- 83 54 4F 7098 .BY \$83 'TO' \$D0  
 2C36- D0  
 2C37- 28 2C 7099 .SI ZNE.-\$07  
 2C39- FC 08 7100 TOP. .SI DOCOL  
 2C3B- 88 09 7101 .SI ZERO  
 2C3D- E2 27 7102 .SI X.  
 2C3F- D2 06 7103 .SI SEMIS  
 7104  
 7105 ; SEC  
 7106  
 2C41- 83 53 45 7107 .BY \$83 'SE' \$C3  
 2C44- C3  
 2C45- 33 2C 7108 .SI TOP.-\$06  
 2C47- FC 08 7109 SEC .SI DOCOL  
 2C49- 98 09 7110 .SI TWO.  
 2C4B- E2 27 7111 .SI X.  
 2C4D- D2 06 7112 .SI SEMIS  
 7113  
 7114 ; R  
 7115  
 2C4F- 81 D2 7116 .BY \$81 \$D2

2C51- 41 2C 7117 .SI SEC-\$06  
 2C53- FC 08 7118 RRR .SI DOCOL  
 2C55- 49 02 7119 .SI LIT  
 2C57- 01 01 7120 .SE \$0101  
 2C59- E2 27 7121 .SI X.  
 2C5B- D2 06 7122 .SI SEMIS  
 7123  
 7124 ; END-CODE  
 7125  
 2C5D- 88 45 4E 7126 .BY \$88 'END-COD' \$C5  
 2C60- 44 2D 43  
 2C63- 4F 44 C5  
 2C66- 4F 2C 7127 .SI RRR-\$04  
 2C68- FC 08 7128 ENDCODE .SI DOCOL  
 2C6A- AD 0A 7129 .SI BASE  
 2C6C- C1 08 7130 .SI STORE  
 2C6E- 44 OD 7131 .SI QCSP  
 2C70- B1 OD 7132 .SI SMUDG  
 2C72- 3E 13 7133 .SI FORTH  
 2C74- D2 06 7134 .SI SEMIS  
 7135  
 7136 ATOP .DI ENDCODE-\$0B  
 7137  
 7138 .CT IFTH70  
 7139 ;  
 7140 \*\*\*\*\*  
 7141 ;\*\* SK-FORTH (79-STANDARD) \*\*  
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 7150 ;  
 7151 ;  
 7152 \*\*\*\*\*  
 7153 ;\*\* SYM/KIM-FORTH PART 13 \*\*  
 7154 ;\*\* DISK FILE FTH70 \*\*  
 7155 \*\*\*\*\*  
 7156 ;  
 7157 ;\*\* EDITOR DEFINITIONS  
 7158 ;  
 7159 ; ETASK DUMMY TO MARK START OF EDITOR WORDS  
 7160 ;  
 2C76- 85 45 54 7161 .BY \$85 'ETAS' \$CB  
 2C79- 41 53 CB  
 2C7C- 40 13 7162 .SI FORTH+\$02  
 2C7E- FC 08 7163 ETASK .SI DOCOL  
 2C80- D2 06 7164 .SI SEMIS  
 7165  
 7166 ; TEXT  
 7167  
 2C82- 84 54 45 7168 .BY \$84 'TEX' \$D4

2C85- 58 D4  
 2C87- 76 2C 7169 .SI ETASK-\$08  
 2C89- FC 08 7170 TEXT .SI DOCOL  
 2C8B- FD 0A 7171 .SI HERE  
 2C8D- BC 09 7172 .SI CSLL  
 2C8F- E1 0A 7173 .SI ONEP  
 2C91- CO 0F 7174 .SI BLANK  
 2C93- F9 0F 7175 .SI WORD  
 2C95- E7 0F 7176 .SI PAD  
 2C97- BC 09 7177 .SI CSLL  
 2C99- E1 0A 7178 .SI ONEP  
 2C9B- B5 05 7179 .SI CMOVE  
 2C9D- D2 06 7180 .SI SEMIS  
 7181  
 7182 ; LINE  
 7183  
 2C9F- 84 4C 49 7184 .BY \$84 'LIN' \$C5  
 2CA2- 4E C5  
 2CA4- 82 2C 7185 .SI TEXT-\$07  
 2CA6- FC 08 7186 LINE .SI DOCOL  
 2CA8- 5E 08 7187 .SI DUP  
 2CAA- 49 02 7188 .SI LIT  
 2CAC- F0 FF 7189 .SE \$FFF0  
 2CAE- 5E 06 7190 .SI ANDD  
 2CB0- 8F 02 7191 .SI CLIT  
 2CB2- 17 7192 .BY \$17  
 2CB3- EB 0C 7193 .SI QERR  
 2CB5- 7E 0A 7194 .SI SCR  
 2CB7- 9D 08 7195 .SI AT  
 2CB9- E7 17 7196 .SI PLINE  
 2CBB- 3D 08 7197 .SI DROP  
 2CBD- D2 06 7198 .SI SEMIS  
 7199 \*\*\*\*\*  
 7200 ; SPCR - SPACE OR CRLF  
 7201 ; DEPENDING ON TERMINAL WIDTH  
 7202  
 2CBF- 84 53 50 7203 .BY \$84 'SPC' \$D2  
 2CC2- 43 D2  
 2CC4- 9F 2C 7204 .SI LINE-\$07  
 2CC6- FC 08 7205 SPCR .SI DOCOL  
 2CC8- B2 09 7206 .SI TW  
 2CCA- 8F 02 7207 .SI CLIT  
 2CCC- 48 7208 .BY \$48  
 2CCD- C2 0B 7209 .SI LESS  
 2CCF- 9B 03 7210 .SI ZBRAN  
 2CD1- 08 00 7211 .SE SPCR1=-  
 2CD3- AB 05 7212 .SI CR  
 2CD5- 7C 03 7213 .SI BRAN  
 2CD7- 04 00 7214 .SE SPCR2=-  
 2CD9- 3A 0C 7215 SPCR1 .SI SPACE  
 2CDB- D2 06 7216 SPCR2 .SI SEMIS  
 7217  
 7218 ; -MOVE  
 7219  
 2CDD- 85 2D 4D 7220 .BY \$85 '-MOV' \$C5  
 2CE0- 4F 56 C5  
 2CE3- BF 2C 7221 .SI SPCR-\$07  
 2CE5- FC 08 7222 DMOVE .SI DOCOL

2CE7- A6 2C	7223	.SI LINE
2CE9- BC 09	7224	.SI CSLL
2CEB- B5 05	7225	.SI CMOVE
2CED- E2 16	7226	.SI UPDAT
2CEF- D2 06	7227	.SI SEMIS
	7228	
	7229 ;	H HOLD LINE AT PAD
	7230	
2CF1- 81 C8	7231	.BY \$81 \$C8
2CF3- DD 2C	7232	.SI DMOVE-\$08
2CF5- FC 08	7233 HH	.SI DOCOL
2CF7- A6 2C	7234	.SI LINE
2CF9- E7 OF	7235	.SI PAD
2CFB- E1 OA	7236	.SI ONEP
2CFD- BC 09	7237	.SI CSLL
2CFF- 5E 08	7238	.SI DUP
2D01- E7 OF	7239	.SI PAD
2D03- D9 08	7240	.SI CSTOR
2D05- B5 05	7241	.SI CMOVE
2D07- D2 06	7242	.SI SEMIS
	7243	
	7244 ;	E ERASE LINE
	7245	
2D09- 81 C5	7246	.BY \$81 \$C5
2DOB- F1 2C	7247	.SI HH-\$04
2DOD- FC 08	7248 EE	.SI DOCOL
2DOF- A6 2C	7249	.SI LINE
2D11- BC 09	7250	.SI CSLL
2D13- CO OF	7251	.SI BLANK
2D15- E2 16	7252	.SI UPDAT
2D17- D2 06	7253	.SI SEMIS
	7254	
	7255 ;	S SPREAD AT GIVEN LINE
	7256	
2D19- 81 D3	7257	.BY \$81 \$D3
2D1B- 09 2D	7258	.SI EE-\$04
2D1D- FC 08	7259 SS	.SI DOCOL
2D1F- 5E 08	7260	.SI DUP
2D21- 49 02	7261	.SI LIT
2D23- 0E 00	7262	.SE \$000E
2D25- 23 04	7263	.SI PDO
2D27- 3C 04	7264 SS1	.SI I
2D29- A6 2C	7265	.SI LINE
2D2B- 3C 04	7266	.SI I
2D2D- E1 OA	7267	.SI ONEP
2D2F- E5 2C	7268	.SI DMOVE
2D31- 49 02	7269	.SI LIT
2D33- FF FF	7270	.SE \$FFFF
2D35- EC 03	7271	.SI PPLOO
2D37- F0 FF	7272	.SE SS1--
2D39- OD 2D	7273	.SI EE
2D3B- D2 06	7274	.SI SEMIS
	7275	
	7276 ;	D DELETE AND HOLD IN PAD
	7277	
2D3D- 81 C4	7278	.BY \$81 \$C4
2D3F- 19 2D	7279	.SI SS-\$04
2D41- FC 08	7280 DD	.SI DOCOL

2D43- 5E 08	7281	.SI DUP
2D45- F5 2C	7282	.SI HH
2D47- 8F 02	7283	.SI CLIT
2D49- OF	7284	.BY \$OF
2D4A- 5E 08	7285	.SI DUP
2D4C- 26 0C	7286	.SI ROT
2D4E- 23 04	7287	.SI PDO
2D50- 3C 04	7288 DD1	.SI I
2D52- E1 0A	7289	.SI ONEP
2D54- A6 2C	7290	.SI LINE
2D56- 3C 04	7291	.SI I
2D58- E5 2C	7292	.SI DMOVE
2D5A- BC 03	7293	.SI PLOOP
2D5C- F4 FF	7294	.SE DD1--
2D5E- OD 2D	7295	.SI EE
2D60- D2 06	7296	.SI SEMIS
	7297	
	7298 ;	T TYPE LINE AT TERMINAL
	7299	
2D62- 81 D4	7300	.BY \$81 \$D4
2D64- 3D 2D	7301	.SI DD-\$04
2D66- FC 08	7302 TT	.SI DOCOL
2D68- 5E 08	7303	.SI DUP
2D6A- F5 2C	7304	.SI HH
2D6C- 5E 08	7305	.SI DUP
2D6E- 8F 02	7306	.SI CLIT
2D70- 03	7307	.BY \$03
2D71- 08 20	7308	.SI DOTR
2D73- C6 2C	7309	.SI SPCR
2D75- 7E 0A	7310	.SI SCR
2D77- 9D 08	7311	.SI AT
2D79- 09 18	7312	.SI DLINE
2D7B- D2 06	7313	.SI SEMIS
	7314	
	7315 ;	L LIST CURRENT SCREEN
	7316	
2D7D- 81 CC	7317	.BY \$81 \$CC
2D7F- 62 2D	7318	.SI TT-\$04
2D81- FC 08	7319 LL	.SI DOCOL
2D83- 7E 0A	7320	.SI SCR
2D85- 9D 08	7321	.SI AT
2D87- 68 20	7322	.SI LIST
2D89- AB 05	7323	.SI CR
2D8B- D2 06	7324	.SI SEMIS
	7325	
	7326 ;	R RETURN PAD TO GIVEN LINE
	7327	
2D8D- 81 D2	7328	.BY \$81 \$D2
2D8F- 7D 2D	7329	.SI LL-\$04
2D91- FC 08	7330 RR	.SI DOCOL
2D93- E7 OF	7331	.SI PAD
2D95- E1 OA	7332	.SI ONEP
2D97- 46 08	7333	.SI SWAP
2D99- E5 2C	7334	.SI DMOVE
2D9B- D2 06	7335	.SI SEMIS
	7336	
	7337 ;	P PUT INDICATED LINE TO CURRENT SCREEN
	7338	

2D9D- 81 DO 7339 .BY \$81 \$DO  
 2D9F- 8D 2D 7340 .SI RR-\$04  
 2DA1- FC 08 7341 PP .SI DOCOL  
 2DA3- 90 09 7342 .SI ONE  
 2DA5- 89 2C 7343 .SI TEXT  
 2DA7- E7 OF 7344 .SI PAD  
 2DA9- E1 OA 7345 .SI ONEP  
 2DAB- B2 08 7346 .SI CAT  
 2DAD- 9B 03 7347 .SI ZBRAN  
 2DAF- 08 00 7348 .SE PP1==  
 2DB1- 91 2D 7349 .SI RR  
 2DB3- 7C 03 7350 .SI BRAN  
 2DB5- 04 00 7351 .SE PP2==  
 2DB7- OD 2D 7352 PP1 .SI EE  
 2DB9- D2 06 7353 PP2 .SI SEMIS  
 7354  
 7355 ; I INSERT TEXT FROM PAD TO GIVEN LINE  
 7356

2DBB- 81 C9 7357 .BY \$81 \$C9  
 2DBD- 9D 2D 7358 .SI PP-\$04  
 2DBF- FC 08 7359 II .SI DOCOL  
 2DC1- 5E 08 7360 .SI DUP  
 2DC3- 1D 2D 7361 .SI SS  
 2DC5- 91 2D 7362 .SI RR  
 2DC7- D2 06 7363 .SI SEMIS  
 7364  
 7365 ; CLEAR INDICATED SCREEN  
 7366

2DC9- 85 43 4C 7367 .BY \$85 'CLEA' \$D2  
 2DCC- 45 41 D2  
 2DCF- BB 2D 7368 .SI II-\$04  
 2DD1- FC 08 7369 CLEAR .SI DOCOL  
 2DD3- 7E 0A 7370 .SI SCR  
 2DD5- C1 08 7371 .SI STORE  
 2DD7- 8F 02 7372 .SI CLIT  
 2DD9- 10 7373 .BY \$10  
 2DDA- 88 09 7374 .SI ZERO  
 2DDC- 23 04 7375 .SI PDO  
 2DDE- 3C 04 7376 CLEAR1 .SI I  
 2DE0- OD 2D 7377 .SI EE  
 2DE2- BC 03 7378 .SI PLOOP  
 2DE4- FA FF 7379 .SE CLEAR1==  
 2DE6- C6 17 7380 .SI SAVBUF  
 2DE8- D2 06 7381 .SI SEMIS  
 7382  
 7383 ; COPY SCREEN-2 TO SCREEN-1  
 7384

2DEA- 84 43 4F 7385 .BY \$84 'COP' \$D9  
 2DED- 50 D9  
 2DEF- C9 2D 7386 .SI CLEAR-\$08  
 2DF1- FC 08 7387 COPY .SI DOCOL  
 2DF3- C6 17 7388 .SI SAVBUF  
 2DF5- 03 OA 7389 .SI BSCR  
 2DF7- 22 16 7390 .SI STAR  
 2DF9- 46 08 7391 .SI SWAP  
 2DFB- 03 OA 7392 .SI BSCR  
 2DFD- 22 16 7393 .SI STAR  
 2DFF- 03 OA 7394 .SI BSCR

2E01- 2C 08 7395 .SI OVER  
 2E03- 90 07 7396 .SI PLUS  
 2E05- 46 08 7397 .SI SWAP  
 2E07- 23 04 7398 .SI PDO  
 2E09- 5E 08 7399 COPY1 .SI DUP  
 2E0B- 3C 04 7400 .SI I  
 2E0D- 67 17 7401 .SI BLOCK  
 2EOF- 61 0B 7402 .SI TWOSB  
 2E11- C1 08 7403 .SI STORE  
 2E13- E1 OA 7404 .SI ONEP  
 2E15- E2 16 7405 .SI UPDAT  
 2E17- BC 03 7406 .SI PLOOP  
 2E19- F0 FF 7407 .SE COPY1==  
 2E1B- 3D 08 7408 .SI DROP  
 2E1D- C6 17 7409 .SI SAVBUF  
 2E1F- D2 06 7410 .SI SEMIS  
 7411  
 7412 ; FIX INDICATED SCREEN LINE  
 7413

2E21- 83 46 49 7414 .BY \$83 'FI' \$D8  
 2E24- D8  
 2E25- EA 2D 7415 .SI COPY-\$07  
 2E27- FC 08 7416 FIX .SI DOCOL  
 2E29- 5E 08 7417 .SI DUP  
 2E2B- E7 OF 7418 .SI PAD  
 2E2D- 8F 02 7419 .SI CLIT  
 2E2F- 50 7420 .BY \$50  
 2E30- 88 09 7421 .SI ZERO  
 2E32- 7F 0F 7422 .SI FILL  
 2E34- A6 2C 7423 .SI LINE  
 2E36- BC 09 7424 .SI CSLL  
 2E38- 90 0E 7425 .SI DTRAI  
 2E3A- E7 OF 7426 .SI PAD  
 2E3C- 46 08 7427 .SI SWAP  
 2E3E- B5 05 7428 .SI CMOVE  
 2E40- 5E 08 7429 .SI DUP  
 2E42- OD 2D 7430 .SI EE  
 2E44- 5E 08 7431 .SI DUP  
 2E46- 8F 02 7432 .SI CLIT  
 2E48- 03 7433 .BY \$03  
 2E49- 08 20 7434 .SI DOTR  
 2E4B- C6 2C 7435 .SI SPCR  
 2E4D- E7 OF 7436 .SI PAD  
 2E4F- BC 09 7437 .SI CSLL  
 2E51- 3A 23 7438 .SI EDIT  
 2E53- 26 OC 7439 .SI ROT  
 2E55- A6 2C 7440 .SI LINE  
 2E57- 46 08 7441 .SI SWAP  
 2E59- B5 05 7442 .SI CMOVE  
 2E5B- D2 06 7443 .SI SEMIS  
 7444  
 7445 ETOP .DI FIX-\$06  
 2E5D- 01 7446 TOP .BY \$01  
 7447  
 7448 .EN

/ACCESS=8B86 /B2400=0006 /B4800=0001 /CON.CR=18EF  
 /BASEAD=0200 /BBUF>=0400 /BEEP=8972 /CONVERT=1ED3  
 /BMAG=0808 /BOS=0020 /BSCR>=0001 /COUNT=0E4F  
 /COMMAND>=7218 /CONCOM>=7219 /CONFIG=89A5 /CR=05AB  
 /CONNUM>=7214 /CRTI=0010 /CRTO=0080 /CREAD1=150A  
 /DAREA=5778 /DELAY=899B /DISK=0000 /CRLF.ALL=18DF  
 /DKNUM>=7215 /DRAM=6000 /ERCODE>=721B /CRLF.P1=2328  
 /FLBOT>=7210 /FLTOP>=7212 /INCH=8A58 /CS.=2C1A  
 /INCNP3=8293 /INSTAT=8386 /IP=00AE /CSP=0AC8  
 /KIM=0000 /MDISK>=7C7C /MEM=6000 /CTROLA0=21B5  
 /MODE=00FD /MONBRK=804A /MONLOAD=8C7B /CTROLA1=21C2  
 /MONSAVE=8E8A /MSECAD>=7217 /MSTAT>=721A /CTROLH1=21E0  
 /MTRKAD>=7216 /MYKIM=0000 /N=00A6 /CTROLM=21F4  
 /NBUF>=0002 /NP=00B8 /ORIG=022A /CTROLQ=199A  
 /P2SCR=829C /RESALL=81C4 /RESXAF=81B8 /CTROLT=2219  
 /RESXF=81BE /SAVER=8188 /SBLK>=0008 /CTROLX1=223D  
 /SDBYT=A651 /SSIZE=0080 /SYM=0001 /CTROLZ=2246  
 /TCR=834D /TEAD>=A64A /TECHO=A653 /CTROLZ2=2254  
 /TEMP=00B7 /TFID>=A64E /TIBX=0100 /CWRITE=0224  
 /TOS=009E /TOUT=8AA0 /TOUTFL=A654 /DD=2D41  
 /TSAD>=A64C /TTY0=0020 /TWIDTH=004F /DDOT=1FC9  
 /UAREA=5F80 /UP=00B3 /USRBRK=A676 /DEC.=28E9  
 /USRENT=8035 /VIADRB=A002 /VIAORB=A000 /DECPNP1=033B  
 /VIAPCR=A00C /W=00B1 /XSAVE=00B5 /DELCHR1=230B  
 /XW=00B9 /YSAVE=00B6 /ZERCK=832E /DEPTH=1EAB  
 AB.=279B ABORT=13A5 ABS=1593 DEY.=2A04  
 ACCEPT=2290 ADC.=28B7 AGAIN=1CD2 DGREAT=1E4A  
 AGAIN.=2B44 AINIT=25AA ALLOT=0B0D DIGIT=0470  
 ALO=2570 AND.=28C1 ANDD=065E DIGS=1FB1  
 ASL.=28CB ASLA.=29A7 ASSM=256A DISK>=1B9B  
 AT=089D AT1=08A8 ATASK=25DF DLESS=0C01  
 ATOP=2C5D AX.=27BF AY.=27C8 DLESS2=OC0D  
 BACK=1C41 BAD.EXIT=26BA BASE=0AAD DLIT1=1261  
 BBREAK=198E BBREAK1=1995 BBUF=09E0 DMIN=1E72  
 BCC.=2729 BCKSL=2318 BCKSPC=2313 DNEGATE=0815  
 BCOMP=11FB BCS.=2733 BDIGS=1F4C DOCOM=0948  
 BEEP1=2204 BEEP2=228D BEGIN=1C53 DOES=0E18  
 BEGIN.=2B14 BELL.VEC=021E BEP=0F04 DOOPCODE=2873  
 BEQ.=273D BINARY=0669 BIT.=28D5 DOT=2018  
 BL=09A9 BLANK=0FC0 BLK=0A63 DOTQ2=0EFB  
 BLOCK=1767 BLOCK1=177F BLOCK2=1797 DOVOC=132B  
 BLOCK3=17AF BMI.=2751 BNE.=2747 DPLUS=07D4  
 BPL.=275B BRAN=037C BREAK.VEC=021B DROP=083D  
 BRK.=2A68 BSCR=0A03 BUFFR=171F DRW=1B26  
 BUFFR1=1729 BUFR2=174F BUMP=03A5 DRW2=1B63  
 BUMP1=03B0 BUSY=1964 BVC.=2765 DTRA1=0E90  
 BVS.=276F CAT=08B2 CC.=2C24 DTRA13=0EB2  
 CCOLD=141A CCOMM=0B2A CFA=0CA3 DUP=085E  
 CHAR.=2279 CHKRET=26BC CLBRAC=1364 DZLESS=07C2  
 CLC.=29D2 CLD.=29DC CLEAR=2DD1 ECRLF.VEC=0218  
 CLEAR1=2DDE CLI.=29E6 CLIT=028F EDITOR=24EE  
 CLITER=1234 CLITER1=1244 CLOAD=24CF EEOF1=22A1  
 CLV.=29F0 CMOVE=05B5 CMOVE1=05C6 EEOF2=22AB  
 CMOVE2=05CE CMOVE3=05D1 CMP.=28DF ELO=24F4  
 CODE=25BF COLD=1F1E COLON=08E6 ERROR=1124  
 COMMA=0B19 COMP=0D79 CON=0A8B ESCAPE1=2262  
 EROR.=28F3 EQUAL=0B8B EXCODE=27F6 ETASK=2C7E  
 EROR.=28F3 EQUAL=0B8B EXCODE1=282B EXCODE2=285C  
 EROR.=28F3 EQUAL=0B8B EXCODE3=285E EXEC=0359  
 EROR.=28F3 EQUAL=0B8B EXPECT=2184 FENCE=0A44 EXIT=091B  
 EROR.=28F3 EQUAL=0B8B FILL1=0F7F FILBUR=2195  
 EROR.=28F3 EQUAL=0B8B FILL1=0F9F FILL2=0FA5

CON.OUT=18CB CONST=0940  
 COPY=2DF1 COPY1=2E09  
 CPX.=2961 CPY.=2977  
 CREAD1=118D CREAD.VEC=0221  
 CRLF.END=18F2 CRLFP=231E  
 CS.=2C1A CSLL=09BC  
 CSTOR=08D9 CTROLA=21A5  
 CTROLA0=21B5 CTROLA1=21C2  
 CTROLH=21CB CTROLH1=21E0  
 CTROLM=21F4 CTROLQ=199A  
 CTROLT=2219 CTROLT1=2229  
 CTROLX1=223D CTROLZ=2246  
 CTROLZ2=2254 CURR=0A98  
 CWRITE.VEC=0224 CWRITE1=14C7  
 DD=2D41 DD1=2D50  
 DDOT=1FC9 DDUP=0C49  
 DEC.=28E9 DECIM=0D7  
 DECNP1=033B DEFIN=1354  
 DELCHR1=230B DELCHR2=231D  
 DEPTH=1EAB DEQUAL=0B98  
 DEY.=2A04 DFIND=10EC  
 DGREAT=1E4A DIG1=1F89  
 DIGIT=0470 DIGIT1=0484  
 DIGS=1FB1 DIGS1=1FB3  
 DISK>=1B9B DLESS=0C01  
 DLESS2=OC0D DLINE=1809  
 DLIT1=1261 DMAX=1E59  
 DMIN=1E72 DMIN1=1E80  
 DNEGATE=0815 DNEQ=1E7D  
 DOCOM=0948 DOCREAT=11E3  
 DOES=0E18 DOMODE=2781  
 DOOPCODE=2873 DOOPREL=26DD  
 DOT=2018 DOTQ=0ED8  
 DOTQ2=0EFB DOTR=2008  
 DOVOC=132B DP=0A4C  
 DPLUS=07D4 DPM=1581  
 DROP=083D DRW=1B26  
 DRW2=1B63 DRW3=1B81  
 DTRA1=0E90 DTRA11=0E98  
 DTRA13=0EB2 DULESS=0BED  
 DUP=085E DZEQU=07A8  
 DZLESS=07C2 ECHAR.VEC=0215  
 ECRLF.VEC=0218 EDIGS=1F5B  
 EDITOR=24EE EE=2DOD  
 EEOF1=22A1 EEOF2=22AB  
 ELO=24F4 ELSE=1D17  
 EMBUF=1708 EMIT=058E  
 ENCL1=0548 ENCL2=0553  
 ENCL5=056A ENCL6=056D  
 ENCL8=0581 ENDCODE=2C68  
 EOR.=28F3 EQUAL=0B8B  
 ERROR=1124 ERROR1=1132  
 ESCAPE1=2262 ETASK=2C7E  
 EXCODE=27F6 EXCODE1=282B  
 EXCODE3=285E EXEC=0359  
 EXPECT=2184 FENCE=0A44  
 FILL1=0F7F FILBUR=2195  
 FILL1=0F9F FILL2=0FA5

FIND=1EE0  
 FIRST=09C8  
 FORG=1BD6  
 FORG3=1C10  
 GET=23F4  
 HERE=0AFD  
 HEXTA1=1919  
 HLD=0AD9  
 I.DP=023C  
 I.SO=0230  
 I.VOCLNK=023E  
 IDDOT=1159  
 II=2DBF  
 IN=0A6C  
 INDEX1=20CD  
 INSERT1=22BB  
 INSERT4=22E2  
 INT3=12B1  
 INT55=12DF  
 INTCHR=18AF  
 INY.=2A18  
 IY.=27B6  
 JMP.=2ACC  
 KEY=0596  
 L2ERR=14F3  
 LDA.=2907  
 LEAVE=06E5  
 LESS2=0BCE  
 LIMIT=09D4  
 LIST1=2099  
 LIT1=0254  
 LITER1=1227  
 LOAD=184A  
 LSRA.=29B2  
 MDISK=1A81  
 MESS1=1832  
 MIN=15B0  
 MODE.=2779  
 MOVDWN1=22E5  
 MSLAS=15FC  
 MVAR=258B  
 NBUF=09F7  
 NEXCHR1=2207  
 NEXT.=262E  
 NOP.=2A22  
 NSCR=187C  
 NULL1=2380  
 NUM1=10B3  
 NUMBER=1096  
 OK.EXIT=26B6  
 ONE=0990  
 OPBYT=298E  
 OPREL=26D5  
 OPXY=2881  
 OR=0673  
 OUT.ALL=18BA  
 OVER=082C  
 PBAUD=0242  
 GND=1  
 FIX=2E27  
 FORG1=1BEF  
 FORTH=133E  
 GREAT=0C18  
 HEX=0DC2  
 HH=2CF5  
 HOLD=0FCF  
 I.FENCE=023A  
 I.TIB=0234  
 I.WARN=0238  
 IF.=1D00  
 IM.=2792  
 INC.=28FD  
 INDE X2=20E5  
 INSERT2=22C3  
 INT1=1295  
 INT4=12B7  
 INT6=12E1  
 INTER=1293  
 IP.=25E8  
 J=0442  
 JSR.=2AF0  
 KTMFLG=0240  
 LATES=0C84  
 LDX.=296C  
 LESS=0BC2  
 LF2=14E4  
 LINE=2CA6  
 LIST1=20B3  
 LIT2=0256  
 LL=2D81  
 LOAD=1C90  
 MAX=15C8  
 MDISK1=1AA5  
 MESS2=1836  
 MIN1=15BE  
 MON=2166  
 MOVDWN2=22F0  
 MSMOD=1684  
 MYSELF=2552  
 NEGATE=07FB  
 NEXCHR2=2272  
 NEXT1=0285  
 NOT=1EC3  
 NTOP=25B8  
 NULL2=2384  
 NUM2=10D8  
 OFF=1AC9  
 ON=1AAC  
 ONEP=0AE1  
 OPCCHK=2669  
 OPREL1=2719  
 OPXY1=28A1  
 ORA.=291B  
 OUT.END=18D0  
 PABOR=1116  
 PBUF=16B6  
 FIND1=1EF0  
 FIX=2E27  
 FORG2=1C09  
 FORTH.TOP=022A  
 HARD=1528  
 HEXTA=1910  
 HI=19B7  
 I=043C  
 I.R0=0232  
 I.UP=022E  
 I.WIDTH=0236  
 IF.=2B54  
 IMMED=12F3  
 INDEX=20C3  
 INSERT=22B6  
 INSERT3=22CF  
 INT2=12AD  
 INT5=12CB  
 INT7=12E3  
 INX.=2AOE  
 IX.=27AD  
 JMI.=2ADE  
 K=0457  
 L2=14CF  
 LBRAC=0D8F  
 LDY.=2982  
 LESS1=0BCB  
 LFA=0C94  
 LIST=2068  
 LIT=0249  
 LITER=1217  
 LO=19AE  
 LSR.=2911  
 MAX1=15D6  
 MESS=181D  
 MESS3=1841  
 MOD=1651  
 MOVDWN=22E3  
 MOVE=1EFB  
 MSTAR=15DF  
 N.=25F8  
 NEXCHR=219A  
 NEXT=0263  
 NFA=0CAF  
 NOT.=2B02  
 NULL=2352  
 NULL2=2388  
 NUM3=10E2  
 OFF 1=1ADE  
 ON1=1AC1  
 ONESB=0B54  
 OPCODE=286B  
 OPREL2=271E  
 OPXY2=28AC  
 OUT=0A75  
 OUTSP.ALL=18D4  
 PAD=0FE7  
 PBUF1=16CF

PCRLF=18F5  
 PDOTQ=0EBF  
 PFIND1=04D6  
 PFIND4=050D  
 PHP.=2A36  
 PICK2=1DA2  
 PLA.=2A40  
 PLP.=2A4A  
 PM=156F  
 PN1=031E  
 PNUM2=1083  
 POP=0433  
 POPTWO.=265D  
 PP=2DA1  
 PPLOO=03EC  
 PROLL=04A1  
 PSCOD=0DEC  
 PSTOR1=087C  
 PUSHOA=06A2  
 PUT.=2623  
 QCSP=0D44  
 QERR2=0CFB  
 QPAIR=0D32  
 QTERM=05A4  
 QUIT=1376  
 R=0724  
 RDEPTH=073E  
 REPEAT.=2BD1  
 ROL.=2925  
 ROLL1=1D7D  
 RORA.=29C8  
 RR=2D91  
 RSLW1=1BB5  
 RTS.=2A5E  
 SAVBUF=17C6  
 SBLK=09EC  
 SCRAD=23C5  
 SDOT1=203D  
 SEC.=2A72  
 SEMCOL=0927  
 SET11=1A3E  
 SETUP=033E  
 SGET=2422  
 SLASH=1641  
 SMVAR=2597  
 SPACS1=1F3F  
 SPCR=2CC6  
 SPSTO=06AE  
 SSLAS=1672  
 STANDARD=2580  
 STBUFF=2198  
 STORE1=08CD  
 SUB=0B3A  
 SWAP=0846  
 SYSSAVE=2496  
 TAPE0=1549  
 TAT=1DBC  
 TBAUD=0241  
 PCRLF.VEC=0212  
 PFA=0CC4  
 PFIND2=04E0  
 PFIND5=0512  
 PICK=1D88  
 PLI=03C9  
 PLINE=17E7  
 PLUS=0790  
 PM1=1579  
 PN2=0325  
 PNUM3=1089  
 POP.=2650  
 PORIG=0A11  
 PP1=2DB7  
 PREV=16AB  
 PROLL1=04B3  
 PSET=1AE8  
 PUSH=025C  
 PUSHOA.=2646  
 PUTT=2390  
 QCSP=0D44  
 QERR=0CEB  
 QERR2=0CFB  
 QEEXEC=0D1C  
 QPAIR=0D32  
 QTERM=05A4  
 QUERY=0F66  
 QUIT1=1380  
 R/T=1513  
 REENTER=0203  
 RFROM=0712  
 ROLA.=29BD  
 ROLL2=1D7F  
 ROT=0C26  
 RRR=2C53  
 RSLW2=1BB7  
 RVL=1F09  
 SAVBUF1=17D0  
 SCOD=0E02  
 SCR=0A7E  
 SCSP=0CD8  
 SDOT2=204B  
 SED.=2A7C  
 SEMIS=06D2  
 SET1=1A47  
 SET2=1A47  
 SETUP.=26C9  
 SIGN=1F74  
 SIMOD=1631  
 SPACE=0C3A  
 SPACS2=1F45  
 SPAT=069F  
 SPCR1=2CD9  
 SS=2D1D  
 SSMOD=1661  
 STAR=1622  
 STOD=1560  
 STX.=294D  
 SUB1=0BA0  
 SYSBASE=0200  
 TAPE=1533  
 TAPE0.OFF=1553  
 TAX.=2A90  
 TBREAK=02DE  
 PDO=0423  
 PFIND=04CD  
 PFIND3=050B  
 PHA.=2A2C  
 PICK1=1D9A  
 PL2=03D6  
 PLOOP=03BC  
 PLUSLP=1CA6  
 PMDISK=1A6D  
 PNUM1=104D  
 PNUMB=104B  
 POPTWO=0431  
 POUT.VEC=020F  
 PP2=2DB9  
 PRNAM=0313  
 PRTBYT=18FE  
 PSTOR=086D  
 PUSHE=2639  
 PUT=025E  
 QCMP=0D05  
 QERR1=0CF9  
 QLOAD=0D60  
 QSTAC=126C  
 QUES=2059  
 QUIT2=1397  
 RBRAC=0D9D  
 REPEAT=1CE9  
 RNUN=0AD0  
 ROLL=1D6B  
 ROR.=292F  
 RPSTO=06BE  
 RSLN=1BA5  
 RTI.=2A54  
 S2=14AD  
 SBC.=2939  
 SCR=0A7E  
 SDOT=2025  
 SEC=2C47  
 SEI.=2A86  
 SET1=1A24  
 SET2=1A61  
 SETUP1=0341  
 SIGN1=1F83  
 SMUDG=0DB1  
 SPACS=1F2F  
 SPAT=069F  
 SPCR2=2CDB  
 SS1=2D27  
 STA.=2943  
 STATE=0AA3  
 STORE=08C1  
 STY.=2957  
 SUB2=0BD3  
 SYSCOLD=245E  
 TAPE.E INIT=1477  
 TAPE1.OFF=1543  
 TAY.=2A9A  
 TBRK=02E5

TBRK2=02F3	TCOLON=02F8	TCON=1DD6
TCRLF.VEC=020C	TDROP=1DEF	TDUP=1DFE
TEAD=1499	TEXT=2C89	TF ID=14A4
THEN=1C64	THEN.=2B9C	THREE=09AO
THSTAR=0B7B	TIB=0A21	TICK=1BBB
TIN.VEC=0206	TOFFO=191E	TOFF1=1927
TOGO=194B	TOG1=1942	TOGGL=088E
TONO=1930	TON1=1939	TOP=2E5D
TOP.=2C39	TOR=0700	TOUT.VEC=0209
TOVER=1EOE	TRACE=0297	TRACOL=0F50
TRAOFF=0F17	TRAON=0F32	TRAV=0C60
TRAV1=0C64	TRCOL=0F58	TRIAD=20F3
TRIAD1=20FF	TROFF=0F1F	TRON=0F3A
TROT=1E23	TRW=19C1	TRW1=19E0
TRW2=1AOF	TRW3=1A17	TSAD=148E
TSTORE=1DA9	TSWAP=1E39	TSX.=2AA4
TT=2D66	TTYCLOSE=1975	TTYOPEN=1954
TTYOUT=1960	TVAR=1E90	TW=09B2
TWO=0998	TWOP=0AEE	TWOSB=0B61
TWOSTAR=0B6E	TXA.=2AAE	TXS.=2AB8
TYA.=2AC2	TYPE=0E62	TYPE0=2691
TYPE02=267C	TYPE1=0E72	TYPE2=0E80
TYPE2A=2688	TYPE3=0E82	TYPE4AC=26AE
TYPE4C=269D	TYPEC=26AA	UDOT=1FFB
ULESS=0BB1	ULESS1=0BB9	UNTIL=1CBC
UNTIL.=2B25	UP.=2619	UPDAT=16E2
USE=16A0	USER=096F	USLAS=0621
USLAS1=0639	USLAS2=064D	USTAR=05E4
USTAR1=05F4	USTAR2=0613	VAR=095E
VLIST=211A	VLIST1=2129	VLIST2=2142
VLO=1344	VOCAB=130B	VOCL=0A5A
W.=25F0	W/T=151D	WARM=142C
WARM1=142E	WARM2=1438	WARN=0A39
WHERE=24FE	WHILE=1D39	WHILE.=2BB9
WIDTH=0A2C	WORD=0FF9	WORD1=100D
WORD2=1011	X.=27E2	XCR=19A3
XEMIT=1898	XFOR=1342	XKEY=1981
XOR=0689	XQTER=1987	XSAVE.=2604
Y.=27EA	YSAVE.=2610	ZBRAN=039B
ZE.=2C10	ZEQU=0753	ZEQU1=075E
ZERBUF=2329	ZERBUF1=232D	ZERO=0988
ZG.=2C06	ZGREAT=077A	ZGREAT1=0787
ZL.=2BFC	ZLESS=0768	ZNE.=2C2F
ZP.=27A4	ZX.=27D1	ZY.=27DA

//0000,2E5E,2E5E

>SE

3000-54FC 5500-7CFC 9000

4025 6B0E

//

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