

	000000	PROGRAM	IDENT LENGTH	TRAC
		BLOCKS		
	000000	002450	ABSOLUTE*	ABSOLUTE
000000		MACROSI	XTEXT	
000006		HEADER1	HEADER2	TRAC,CLASS,2,50
000012		MAP		FL,START,25,SCRSZ
000020		MAP		TRAC,DAVE,SCRSZ,SCRSZ,FL-SCRSZ,1
000026	77777777777777777776	DATA		,,0,0,SCRSZ,0
				-1 END OF MAP

		* C-LIST *		

000027		C.SAVE	CAP	SAVE,OPERATE
000031		C.RESTOR	CAP	RESTOR,OPERATE
000033		C.RETURN	CAP	RETURN,OPERATE
000035		C.SELF	CAP	TRAC,DAVE
000037	0000000000000000000000	DATA		0 END OF C-LIST

		* READ/WRITE AREA *		

000040		REGSAVE	BSSZ	16
000060		FBEGIN	BSS	1
000061		FEND	BSS	1

000062	0000000000000000000064	STRDESC	VFD	60/LINEBUF,60/140
000064		LINERUF	BSSZ	20

000110		TOPNS	BSS	1
000111		LWALL	BSS	1
000112		RWALL	BSS	1
000113		SCANPTR	BSS	1

000114		FCHAIN	BSSZ	1
000115		HTABLE	BSSZ	64
	0000310	SIZE	EQU	200
000215	0000000000000000000057	AVAIL	VFD	42/0,18/STORAGE
000216		STRINGS	BSS	200
000526	0000000000000000000000		VFD	60/0 DUMMY BOUNDARY TAG
000527	4000031000021500000000	STORAGE	VFD	1/1,5/0,18/SIZE,18/AVAIL,18/0
000530			BSS	SIZE-2
001036	4000031000000000000000		VFD	1/1,5/0,18/SIZE,36/0
001037	0000000000000000000000		VFD	60/0 DUMMY BOUNDARY TAG
001040		STACK	BSS	100
001204		ENDSTK	BSS	0

001204		SCRSZ	BSS	0 NOTE..MUST COME LAST
	0001204	ENDRW	EQU	SCRSZ

```

*
*****
* READ-ONLY AREA *
*****
001204          START      XJ      READSELF      INITIALIZE READ/WRITE AREA
001205 0150000526          SB5      STORAGE-1
          6160001040          SB6      STACK
001206 6170001203          SB7      ENDSTK-1
          13666          BX6      X6-X6
001207 5160000114          SA6      FCHAIN      FCHAIN EMPTY
001210 6120000000          SB2      0      PAREN CT = 0
          6130000216          SB3      STRINGS
001211 6140000000          SB4      0
          5150001237          SA5      IDLEP
001212 10655          BX6      X5
          6144777776          SB4      B4-1
          56645          SA6      B4-B5
001213 5055777776          SA5      A5-1
          0325001212          PL      X5,RELOAD2
001214 0200001240          JP      SCAN1
*
*
001215 77777777777777777777 VFD      60/-0
001216 0000000000000000003 VFD      60/3B      E
001217 0000000000000000010 VFD      60/10B      (
001220 0000000000000000000 VFD      60/60B      P
001221 0000000000000000000 VFD      60/63B      S
001222 0000000000000000014 VFD      60/14B      ,
001223 0000000000000000014 VFD      60/147B      BELL
001224 0000000000000000011 VFD      60/11B      )
001225 0000000000000000003 VFD      60/03B      E
001226 0000000000000000010 VFD      60/10B      (
001227 0000000000000000000 VFD      60/60B      P
001230 0000000000000000000 VFD      60/63B      S
001231 0000000000000000014 VFD      60/14B      ,
001232 0000000000000000003 VFD      60/03B      E
001233 0000000000000000010 VFD      60/10B      (
001234 0000000000000000002 VFD      60/62B      R
001235 0000000000000000000 VFD      60/63B      S
001236 0000000000000000011 VFD      60/11B      )
001237 0000000000000000011 IDLEP VFD      60/11B      )

```

*
* MAIN SCAN LOOP
*

001240	0640001210	56545	SCAN1	PL SA5	B4,RELOAD B4+B5	PICK UP SCANNED CHAR
		65153		SB1	A5-B3	CHECK FOR STRING COLLISION
001241	0701001243	6110001243		GT SB1	B1,SCAN1.5 SCAN1.5	
001242	0200001562			JP	SCOLLIDE	
001243	6144000001	0520001251	SCAN1.5	SB4 NZ	B4+1 B2,SCAN2	INCR SCAN PTR TEST PAREN COUNT
001244	7245777763	0304001257		SX4 ZR	X5-COMMA X4,SCAN10	
001245	7245777774	0304001267		SX4 ZR	X5-SHARP X4,SCAN20	
001246	7245777766	0304001303		SX4 ZR	X5-RPAREN X4,SCAN30	
001247	7245777767	0314001255		SX4 NZ	X5-LPAREN X4,SCAN4	
001250	6120000001	0200001240		SB2 JP	I SCAN1	
001251	7245777767	0314001253	SCAN2	SX4 NZ	X5-LPAREN X4,SCAN3	
001252	6122000001	0200001255		SB2 JP	B2+1 SCAN4	INCR PAREN COUNT
001253	7245777766	0314001255	SCAN3	SX4 NZ	X5-RPAREN X4,SCAN4	
001254	6122777776	0420001240		SB2 ZR	B2-1 B2,SCAN1	DECR SCAN COUNT
001255	10655	56630	SCAN4	BX6 SA6	X5 B3	COPY CHAR TO NEUTRAL STRING
001256	0200001240	6133000001		SB3 JP	B3+1 SCAN1	

*
* COMMA .. PUSH ACTUAL PARAMETER ENTRY
*

001257	5157000001	63150	SCAN10	SA5 SB1	B7+1 X5	LOOK AT PREV ENTRY
001260	0510001262	21522		NZ	B1,SCAN11	
001261	7255000001	0200001263		AX5 JP	I8 X5+1	
001262	7150000001	20622	SCAN11	SX5	SCAN12	PREV ENTRY WAS FUNCTION
001263	76630	12665	SCAN12	SX6 LX6	B3 I8	
		20622		BX6	X6+X5	
001264	56670	6177777776		LX6 SA6	I8 B7	AP ENTRY (TYPE = 0)
001265	0567001240	6110001240		SB7 NE	B7-1 B6,B7,SCAN1	PUSH STACK
001266	0200001556			SB1 JP	SCAN1 FCOLLIDE	STACK HIT FORMS

*
 * SHARP .. PUSH FUNCTION ENTRY *
 *

001267	5045000001	7234777767	SCAN20	SA4	A5+1	
				SX3	X4-LPAREN	
001270	0303001275	7234777774		ZR	X3,SCAN21	
				SX3	X4-SHARP	
001271	0314001255	5045000002		NZ	X4,SCAN4	
				SA4	A5+2	
001272	7244777767	0314001255		SX4	X4-LPAREN	
				NZ	X4,SCAN4	
001273	7130000002	6144000002		SX3	2	NEUTRAL FUNCTION(TYPE=2)
				SB4	B4+2	SKIP 2ND SHARP ^ PAREN
001274	0200001276			JP	SCAN22	
001275	7130000001	6144000001	SCAN21	SX3	1	ACTIVE FUNCTION(TYPE=1)
				SB4	B4+1	
001276	0640001210	5150000114	SCAN22	PL	B4,RELOAD	CHECK FOR END OF ACTIVE STRING
				SA5	FCHAIN	
001277	76670	54650		SX6	B7	
				SA6	A5	
		76630		SX6	B3	
		20622		LX6	18	
001300	12665			BX6	X6+X5	
		20622		LX6	18	
		12663		BX6	X6+X3	
		56670		SA6	B7	
001301	6177777776	0567001240		SB7	B7-1	
				NE	B6,B7,SCAN1	
001302	6110001240	0200001556		SB1	SCAN1	
				JP	FCOLLIDE	

*
 * RT PAREN .. PUSH ENDF AND CALL FUNCTION BODY *
 *

001303	5140000114	0304001240	SCAN30	SA4	FCHAIN	ANY FUNCTIONS ON STACK?
				ZR	X4,SCAN1	NO..FORGET RT PAREN
001304	5157000001	63150		SA5	B7+1	
				SB1	X5	TYPE OF PREV ENTRY
001305	0510001307	21522		NZ	B1,SCAN31	
				AX5	18	PREV ENTRY WAS AP
		73550		SX5	X5	
001306	0200001310			JP	SCAN32	
001307	7150000000		SCAN31	SX5	0	PREV WAS FUNC, NO APS
001310	76630	20622	SCAN32	SX6	B3	
				LX6	18	
		12665		BX6	X6+X5	
		20622		LX6	18	
001311	7150000003	12665		SX5	1	ENDF ENTRY(TYPE=3)
				BX6	X6+X5	
		56670		SA6	B7	
001312	0200001313			JP	FENTRY	

000003	* SHARP	EQU	3B	= CHAR
000010	LPAREN	EQU	10B	(CHAR
000011	RPAREN	EQU	11B	) CHAR
000014	COMMA	EQU	14B	, CHAR
000040	HOLE	EQU	40B	
000077	NULL	EQU	777B	
000155	EOS	EQU	155B	CR CHAR

*
 * FUNCTION ENTRY.. PREPARES FOR FUNCTION BODY
 *

001313	56045	FENTRY	SA0	B4+B5	SAVE SCAN POINTER
	66430		SB4	B3	PTR TO N.S. TOP
	76630		SX6	B3	
001314	5160000110		SA6	TOPNS	
	76650		SX6	B5	
	76760		SX7	B6	
001315	5160000111		SA6	LWALL	
	5170000112		SA7	RWALL	
001316	73640		SX6	X4	
	76770		SX7	B7	
	5160000060		SA6	FBEGIN	
001317	5170000061		SA7	FEND	
	53540		SA5	X4	
	21544		AX5	36	
001320	63650		SB6	X5	PTR TO FUNC NAME
	5254777776		SA5	X4-1	PICK UP API OR ENDF
	21544		AX5	36	
001321	6255777775		SB5	X5-2	LENGTH OF FUNC NAME
	67556		SB5	B5-B6	
001322	0550001331		NZ	B5,FEXIT	FUNCTION NAME, NE. 2 CHARS
	56460		SA4	B6	1ST CHAR OF FUNC NAME
001323	5156000001		SA5	B6+1	2ND CHAR OF FUNC NAME
	20407		LX4	7	
	12445		BX4	X4+X5	BOTH CHARS
001324	66100		SB1	B0	
	5150001352		SA5	FNAMES	
001325	13345	FENTRY1	BX3	X4-X5	
	0303001330		ZR	X3,FENTRY2 NAME FOUND, JUMP TO BODY	
001326	6111000001		SB1	B1+1	
	5055000001		SA5	A5+1	
001327	0325001325		PL	X5,FENTRY1	
	0200001331		JP	FEXIT	NAME NOT FOUND, SO NULL
001330	0210001366	FENTRY2	JP	B1+FJUMPS	

* FUNCTION EXIT., RETURNS FROM FUNCTION TO SCANNER

001331	5150000060	FEXIT	SA5	FBEGIN	
	63250		SB2	X5	
001332	5150000061		SA5	FEND	
	63350		SB3	X5	
	56520		SA5	B2	
001333	63150		SB1	X5	FUNCTION TYPE
	21522		AX5	18	
	73650		SX6	X5	
001334	5160000114		SA6	FCHAIN	
	21522		AX5	18	
	63650		SB6	X5	START OF FUNCTION
001335	56530		SA5	B3	
	21544		AX5	36	
	63550		SB5	X5	START OF VALUE
001336	0654001347		LE	B4,B5,FEXIT4	NULL VALUE
	6111777776		SB1	B1-1	
001337	0410001343		ZR	B1,FEXIT2	
	56550		SA5	B5	PROCESS NEUTRAL VALUE
001340	65154	FEXIT1	SB1	A5-B4	
	0410001347		ZR	B1,FEXIT4	
	10655		BX6	X5	
001341	56660		SA6	B6	
	6166000001		SB6	B6+1	
001342	5055000001		SA5	A5+1	
	0200001340		JP	FEXIT1	
001343	5154777776	FEXIT2	SA5	B4-1	PROCESS ACTIVE VALUE
001344	65155	FEXIT3	SB1	A5-B5	
	0710001347		NG	B1,FEXIT4	
	10655		BX6	X5	
001345	5000777776		SA0	A0-1	
	54600		SA6	A0	
001346	5055777776		SA5	A5-1	
	0200001344		JP	FEXIT3	
001347	66360	FEXIT4	SB3	B6	TOP OF N.S.
	5150000111		SA5	LWALL	RESTORE
	63550		SB5	X5	FORM
001350	5150000112		SA5	RWALL	BOUNDARY
	63650		SB6	X5	POINTERS
	65405		SB4	A0-B5	SCAN POINTER
001351	66720		SB7	B2	TOP OF STACK
	66200		SB2	B0	PAREN COUNT=0
	0200001240		JP	SCAN1	

001352	00000000000000000014063	FNAMES	VFC	46/0,7/60B,7/63B	PS
001353	00000000000000000014463		VFC	46/0,7/62B,7/63B	RS
001354	00000000000000000011063		VFC	46/0,7/44B,7/63B	DS
001355	00000000000000000010654		VFC	46/0,7/43B,7/54B	CL
001356	00000000000000000014663		VFC	46/0,7/63B,7/63B	SS
001357	00000000000000000011044		VFC	46/0,7/44B,7/44B	DD
001360	00000000000000000011270		VFC	46/0,7/45B,7/70B	EX
001361	00000000000000000011042		VFC	46/0,7/44B,7/42B	DB
001362	00000000000000000011261		VFC	46/0,7/45B,7/61B	EQ
001363	00000000000000000010244		VFC	46/0,7/41B,7/44B	AD
001364	00000000000000000014665		VFC	46/0,7/63B,7/65B	SU
001365	77777777777777777777		VFC	60/-0	
001366		*			
001366	0200001616	FJUMPS	JP	PS	
001367	0200001606	+	JP	RS	
001370	0200001635	+	JP	DS	
001371	0200002032	+	JP	CL	
001372	0200001723	+	JP	SS	
001373	0200002105	+	JP	DD	
001374	0200002122	+	JP	FX	
001375	0200002123	+	JP	DB	
001376	0200002130	+	JP	EQ	
001377	0200002201	+	JP	AD	
001400	0200002270	+	JP	SU	
		*			

```

*
* MACROS FOR USE BY FUNCTION BODIES
*

```

```

PARAM      MACRO      N,START,FIN
LOCAL      PARAM1,PARAM2
SA4        FBEGIN
SA5        FEND
IX5        X4=X5
SB7        X5=1
SX5        B7=N
PL         X5,PARAM1

```

```

PARAM1     S*START    B0
PARAM1     S*FIN      B0
PARAM1     JP         PARAM2
PARAM1     SB7        X4
PARAM1     SA5        B7=N
PARAM1     LX5        24

```

```

PARAM2     S*START    X5
PARAM2     SB7        X4=1
PARAM2     SA5        B7=N
PARAM2     LX5        24
PARAM2     S*FIN      X5
PARAM2     BSS        0

```

```

ENDM

```

```

*
* VALUE
*
MACRO      REG
SA5        FEND
SA5        X5
LX5        24

```

```

S*REG      X5
ENDM

```

```

*
* PLENGTH
*
MACRO      START,FIN,XL
S*XL      FIN=START
A*XL      3
S*XL      XL+1
ENDM

```

```

*
* STOREX6
*
MACRO      BREG
LOCAL      STORE1
SB1        A0          SCAN PTR
LT         BREG,B1,STORE1
SB1        STORE1
JP         SCOLLIDE
STORE1     SA6
ENDM

```

```

*
* INTRREG
*
MACRO      PNUM,XREG
LOCAL      L1,L2,L3,L4,L5
SX0        B0
S*XREG     B0

```

	PARAM	PNUM,B6,B7	
	EQ	B6,B7,L5	NULL HAS VALUE 0
	SAS	B6	
	SX5	X5-15B	TEST FOR MINUS
	NZ	X5,L1	
	MX0	1	NEG FLAG
	JP	L3	
L1	SX5	X5-03B	
L2	B $\rightarrow$ XREG	XREG+X5	
L3	SAS	A5+1	
	SX5	X5-20B	
	SB6	A5-B7	END OF STRING
	ZR	B6,L4	
	L $\rightarrow$ XREG	3	
L4	JP	L2	
	PL	X0,L5	
	B $\rightarrow$ XREG	-XREG	
L5	BSS	0	
	ENCM		
* * * REGINT	MACRO	X7 24 XREG,BREG	
	LOCAL	L1,L2,L3,L4,L5	
	ZR	XREG,L4	
	PL	XREG,L1	
	B $\rightarrow$ XREG	-XREG	
	SX6	15B	MINUS SIGN
	STOREX6	BREG	
	S $\rightarrow$ BREG	BREG+1	
L1	SB7	20	
	MX7	57	
L2	L $\rightarrow$ XREG	3	
	SB7	B7-1	
	BX6	-X7 $\rightarrow$ XREG	
	ZR	X6,L2	
L3	SX6	X6+20B	
	STOREX6	BREG	
	S $\rightarrow$ BREG	BREG+1	
	L $\rightarrow$ XREG	3	
	SB7	B7-1	
	(ZR)	B7,L5	
	BX6	-X7 $\rightarrow$ XREG	
	JP	L3	
L4	SX6	20B	ZERO CHAR
	STOREX6	BREG	
	S $\rightarrow$ BREG	BREG+1	
L5	BSS	0	
	ENCM		

*
* SURROUTINES FOR USE BY FUNCTION BODIES
*

* PACK CHARACTERS FROM NEUTRAL STRING
*

B4=END OF STRING+1
B5=START OF UNPACKED STRING
B6=DESTINATION
B7=RETURN ADDR
*

001401	515577776	PACK	SA5	B5-1	
001402	13666	PACK1	BX6	X6-X6	
	6130000070		SB3	56	BIT COUNTER
001403	5055000001	PACK2	SA5	A5+1	
	65254		SB2	A5-B4	
001404	0420001416		ZR	B2,PACK4	
	7245777000		SX4	X5=NULL	
001405	0304001403		ZR	X4,PACK2	DELETE NULLS
	724577737		SX4	X5-HOLE	
001406	0314001413		NZ	X4,PACK3	
	73450		SX4	X5	
	21522		AX5	18	
001407	20607		LX6	7	
	12664		BX6	X6+X4	
	6133777770		SB3	B3-7	DECR BIT COUNTER
001410	0530001413		NZ	B3,PACK3	CHECK FOR ROOM LEFT IN WORD
	56660		SA6	B6	
001411	6166000001		SB6	B6+1	
	10655		BX6	X5	
	54650		SA6	A5	
001412	5055777776		SA5	A5-1	OUTFOX PACK2
	0200001402		JP	PACK1	
001413	20607	PACK3	LX6	7	
	12665		BX6	X6+X5	
	6133777770		SB3	B3-7	DECR BIT COUNTER
001414	0530001403		NZ	B3,PACK2	
	56660		SA6	B6	
001415	6166000001		SB6	B6+1	
	0200001402		JP	PACK1	
001416	20607	PACK4	LX6	7	
	7150000155		SX5	E05	
	12665		BX6	X6+X5	
001417	6133777770		SB3	B3-7	
	22636		LX6	B3,X6	
	56660		SA6	B6	
001420	0270000000		JP	B7	

*
* UNPACK A LINE TO NEUTRAL STRING
*

001421 515577776 UNPACK SA5 R5-1

001422	5055000001	UNPACK1	MX4 SA5 LX5 SB6 LX5	53 A5+1 4 56 7	
001423	6160000070				BIT COUNTER
001424	20507	UNPACK2	SB6 BX6 SX3 ZR SI0REX6 SB4	B6-7 -X4*X5 X6-EOS X3,UNPACK5 B4 R4+1	DECR BIT COUNTER
001425	7236777622				
001426	0303001437				
001431	6144000001				
001432	7236777737				
001432	0560001434				
001433	0313001436				
001433	0560001434				
001433	5055000001				
001433	20504				
001434	6160000070				
001434	20507	UNPACK3	LX5 SB6 BX4 LX4 BX6 SA6	7 B6-7 -X4*X5 18 X6*X4 A6	DECR BIT COUNTER
001435	6166777770				
001435	20422				
001435	12664				
001435	54660				
001436	43465				
001436	0560001424	UNPACK4	MX4 NZ JP	53 B6,UNPACK2 UNPACK1	RESTORE CHAR MASK
001437	0200001422	UNPACK5	NZ JP	B7	
001437	0270000000				
001440	6160001441				
001441	0200001466				
001441	5250000115	FINDF1	SB6 JP	FINDF1 HASH	
001442	0315001443				
001442	66600				
001442	0270000000				
001443	0270000000				
001443	6213000003	FINDF2	PLLENGTH SB1	B2,B3,X3 X3+3	PSEUDO=FORM = PACKED NAME + 1 CONTROL WORD + BOUNDARY TAGS
001444	76170				
001445	6170001447				
001445	66630				
001446	0200001515				
001447	10633	FINDF3	SX1 SB7 SB6 JP BX6 SA6	B7 FINDF3 B3 ALLOC X3 R1+1	STORE LENGTH IN CONTROL WORD
001450	66520				
001451	6161000002				
001451	6170001452				
001452	0200001401				
001452	6170001453	FINDF4	SB4 SB5 SB6 SB7 JP SB7	B6 B2 B1+2 FINDF4 PACK FINDF5	PACK NAME INTO PSEUDO-FORM

001453	63710	0200001454	FINDFS	JP SB7 JP	SEARCH X1 FREE	LOOK FOR REAL FORM MATCHING PSEUDO-FORM
		0200001540				
			SEARCH			INPUT..X0=HASH CODE,B1=PTR TO GIVEN FORM,B7=RETURN
						OUTPUT,B6=PTR TO FORM OF SAME NAME OR 0
						USES...B4,A3,X3,A4,X4,A5,X5
001454	5250000115		SEARCH	SA5	X0+HTABLE	
001455	63650		SEARCH1	SB6	X5	
		0560001457		NZ	B6,SEARCH2	END OF TABLE TEST
		66600		SB6	B0	INDICATE NOT FOUND
001456	0270000000			JP	B7	
001457	56560		SEARCH2	SA5	B6	ADVANCE IN CHAIN
		5131000001		SA3	B1+1	LENGTH OF NAME
001460	5146000001			SA4	B6+1	
		13334		BX3	X3-X4	COMPARE NAME LENGTHS
001461	0313001455			NZ	X3,SEARCH1	
		63440		SB4	X4	MATCH..COMPARE NAMES
001462	5033000001		SEARCH3	SA3	A3+1	
		5044000001		SA4	A4+1	
001463	13334			BX3	X3-X4	
		0313001455		NZ	X3,SEARCH1	
001464	6144777776			SB4	B4-1	
		0540001462		NZ	B4,SEARCH3	
001465	0270000000			JP	B7	FORM FOUND..EXIT
			HASH			INPUT..B2=PTR TO STRING,B3=PTR TO END+1 OF STRING,B6=RETURN
						OUTPUT,X0=HASH CODE
						USES...A5,X5,B4
001466	7100000000		HASH	SX0	0	
		0520001470		NZ	B2,HASH0	
001467	0260000000			JP	B6	
001470	5152777776		HASH0	SA5	B2-1	
001471	5055000001		HASH1	SA5	A5+1	MOVE DOWN IN NAME
		65453		SB4	A5-B3	CHECK FOR END
001472	0440001474			ZR	B4,HASH2	
		13005		BX0	X0-X5	EXCLUSIVE-OR EACH CHARACTER
001473	0200001471			JP	HASH1	
001474	43566		HASH2	MX5	54	
		15005		BX0	-X5*X0	USE ONLY 6 BITS
		0260000000		JP	B6	
			ERASE			INPUT..B6=PTR TO FORM TO BE ERASED,B7=RETURN
						USES...B4,B5,X4,A5,X5,A6,X6
001475	66360		ERASE	SB3	B6	
		6150001477		SB5	ERASE1	
001476	0200001507			JP	UNCHAIN	
001477	66160		ERASE1	SB1	B6	
		0200001540		JP	FREE	

* CHAIN...ADD A BLOCK TO A GIVEN CHAIN
 * INPUT..B3=PTR TO BLOCK,B4=PTR TO CHAIN HEAD,B5=RETURN
 * USES...14,X4,A5,X5,A6,X6

001500	56540	CHAIN	SA5	B4
	76630		SX6	B3
001501	0305001504		SA6	A5
	53450		ZR	X5,CHAIN1
	20452		SA4	X5
001502	43452		LX4	60-18
	11664		MX6	60-18
	76430		BX6	X6+X4
	12664		SX4	B3
001503	20622		BX6	X6+X4
	54640		LX6	18
001504	56430	CHAIN1	SA6	A4
	43630		SA4	B3
	11664		MX6	60-36
	20652		BX6	X6+X4
001505	76440		LX6	60-18
	12664		SX4	B4
	20622		BX6	X6+X4
	12665		LX6	18
001506	54640		BX6	X6+X5
	0250000000		SA6	A4
			JP	B5

* UNCHAIN..REMOVE A BLOCK FROM THE CHAIN IT IS IN
 * INPUT..B3=PTR TO BLOCK,B5=RETURN
 * USES...B4,A4,X4,A7,X7

001507	56430	UNCHAIN	SA4	B3
	63340		SB3	X4
	20452		LX4	60-18
	63440		SB4	X4
001510	0430001513		ZR	B3,UNCHAIN1
	56430		SA4	B3
	10744		BX7	X4
001511	20752		LX7	60-18
	43452		MX4	60-18
	11774		BX7	X7+X4
	76440		SX4	B4
001512	12774		BX7	X7+X4
	20722		LX7	18
	54740		SA7	A4
001513	56440	UNCHAIN1	SA4	B4
	43752		MX7	60-18
	11774		BX7	X7+X4
	76430		SX4	B3
001514	12774		BX7	X7+X4
	54740		SA7	A4
	0250000000		JP	B5

		0 * * ALLOC	INPUT..B1=SIZE OF BLOCK REQUESTED,B7=RETURN	
001515	5150000215	ALLOC	SAS	AVAIL
001516	0305001533	ALLOC1	ZR	X5,ALLOCA END OF CHAIN
	53550		SAS	X5 ADVANCE IN CHAIN
	10655		BX6	X5
001517	20630		LX6	60-36 SIZE FIELD
	63560		SB5	X6
	77451		SX4	B5-B1
001520	0334001516		NG	X4,ALLOCI TOO SMALL
	0304001927		ZR	X4,ALLOCI JUST RIGHT
001521	6254777777		SB5	X4-SLOP
	0750001927		NG	B5,ALLOCI
001522	43552		MX5	60-18
	11665		BX6	X6-X5
	12664		BX6	X6+X4
	20644		LX6	36
001523	6254777776		SB5	X4-1
	54650		SA6	A5
	54655		SA6	A5+B5
001524	76710		SX7	B1
	20744		LX7	36
	64561		SB5	A6+B1
001525	6016000001		SB1	A6+1
	56710		SA7	B1
	56750		SA7	B5
001526	0270000000		JP	B7
001527	64150	ALLOCI	SB1	A5
	64350		SB3	A5
	6150001531		SB5	ALLOCI
001530	0200001507		JP	UNCHAIN
001531	73660	ALLOCI	SX6	X6
	6256777776		SB5	X6-1
	20644		LX6	36
001532	56610		SA6	B1
	56615		SA6	B1+B5
	0270000000		JP	B7
001533		ALLOCI	DEBUG	
001537	0200001515		JP	ALLOCI
	0000006	SLOP	EQL	6
		* * FRFE	INPUT..B1=BLOCK ADDR,B7=RETURN	
		* * USES...B2,B5,X3,A4,X4,A5,X5,A6,X6		
001540	5151777776	FREE	SAS	B1-1
	0325001546		PL	X5,FREE2 UPPER BLOCK BUSY
001541	20530		LX5	60-36 UPPER BLOCK FREE
	63250		SB2	X5 SIZE OF UPPER BLOCK
	67312		SB3	B1-B2 REMOVE UPPER
001542	6150001543		SB5	FREE1 BLOCK FROM
	0200001507		JP	UNCHAIN AVAIL CHAIN
001543	56510	FREEI	SAS	B1

001544	20530 623577776 20544 43601	73552	LX5 SX5 SB3 LX5 MX6	60-36 X5+B2 X5-1 36 1	SIZE OF MERGED BLOCK FREE FLAG
001545	12665 67112 56610 56613		BX6 SB1 SA6 SA6 SA5 LX5	X6+X5 B1-B2 B1 B1+B3 B1 60-36	STORE TAGS IN MERGED BLOCK SIZE THIS BLOCK
001546	56510 20530 63250 56512	FREE2	SA5 PL SB3 SB5 JP	B1+B2 X5, FREE4 A5 FREE3 UNCHAIN	LOWER BLOCK BUSY LOWER BLOCK FREE REMOVE LOWER BLOCK FROM AVAIL CHAIN
001551	20530 73552 623577776 20544 43601 12665 56610	FREE3	LX5 SX5 SB3 LX5 MX6 BX6	60-36 X5+B2 X5-1 36 1 X6+X5	SIZE OF MERGED BLOCK FREE FLAG
001553	56613 66310 6140000275 66570	FREE4	SA6 SA6 SB3 SB4 SB5 JP	B1 B1+B3 B1 AVAIL B7 CHAIN	STORE TAGS IN MERGED BLOCK ADD BLOCK TO AVAIL CHAIN
001555	0200001500				
001556		* FCOLLIDE	DEBUG		
001562		* SCOLLIDE	DEBUG		
		* *			
		* *			
		* COMPD	COMPACT FORM STORAGE DOWNWARD		
		* *	INPUT..B6=RETURN		
		* *	USES...B1,B2,B3,B4,A5,X5,A6,X6,A7,X7		
001566	6140000000 5150000111	COMPD	SB4 SA5 SB1	0 LWALL A5-RWALL	COUNT OF RECOVERED CELLS END OF FORM STORAGE
001567	6015777665 0610001602	COMP01	PL PL LX5 SB4 SB1 SA5	B1,COMP05 X5,COMP02 60-36 X5+B4 X5 A5+B1	YES..UPDATE FREE CHAIN NO..CHECK NEXT BLOCK NEXT BLOCK FREE
001570	0325001572 20530 63454		JP BX6 SB3 LX5 SB2 LX5	COMP01 X5 X5 60-18 X5 60-18	NEXT BLOCK BUSY
001571	63750 54551 0200001567	COMP02			
001572	10655 63350 20552 63850				
001573	20552				

001574	0430001576	63150 76540 56430 36445	COMP03	SB1 SX5 ZH SA4 IX4 BX7	X5 B4 B3,COMP03 B3 X4+X5 X4 A4 60-18 B2 X4+X5 X4	
001575	10744	54740		LX7 SA7 LX5 SA4 IX4 BX7	18 A4 60-18 B2 X4+X5 X4	
001576	20552	56420 36445 10744	COMP03	LX7 SA7 SA6 SA5 SB1 NZ	18 A4 A5-B4 A5+1 B1-1 B1,COMP04	
001577	20722	54740		SA6 SA6 SA7 LX7 SX4 BX7	A5-B2 AVAIL B2 18 A6 X7+X4	SIZE OF SINGLE FREE BLOCK
001600	55654	5055000001	COMP04	LX7 MX4 BX7 SA7 SA7 JP	18 1 X7+X4 X6 A5 B6	FREE FLAG STORE BOUNDARY TAGS AT TOP AND BOTTOM OF FREE BLOCK
001601	611177776	0510001600				
001602	75652	5160000215	COMP05			
001603	20722	74460 12774 20722				
001604	43401	12774 53760 54750				
001605	0260000000					

READ STRING FUNCTION

001606 6110000064

RS

SB1

LINEBUF

READ

A

READ TO TTY BUFFER

001613

VALUE

B4

6150000064

SB5

LINEBUF

001615 6170001331

SB7

FEXIT

0200001421

JP

UNPACK

UNPACK STRING FROM TTY BUFFER

*
* PRINT STRING FUNCTION
*

001616		PS	PARAM	1,B5,B4	
001625	6160000064		SB6	LINEBUF	
	6170001627		SB7	PS1	
001626	0200001401		JP	PACK	PACK STRING TO IY BUFFER
001627	6110000062	PS1	SB1	STRDESC	
			BEAD	5	PRINT BUFFER ON IY
001634	0200001331		JP	PEXIT	

```

*
* DEFINE STRING FUNCTION
*

```

001635		DS	PARAM	1,B2,B3	
001644			PLENGTH	R2,B3,X3	
001645			PARAM	2,B3,B4	
001654			PLENGTH	R3,B4,X4	PACKED LENGTH OF VALUE
001655	36534		IX5	X3+X4	TOTAL SPACE = NAME + VALUE
	6215000004		S01	X5+4	+ 2 CONTROL WORDS + BOUNDARY TAGS
001656	6170001657		S07	DS1	
	0200001515		JP	ALLOC	
001657	73630	DS1	SX6	X3	NAME LENGTH IN CONTROL WORD
	5161000001		SA6	R1+1	
001667	6161000002		PARAM	1,B5,B4	
	6170001671		S06	R1+2	
001670	0200001401		S07	DS2	
			JP	PACK	PACK NAME INTO BLOCK
001671		DS2	PARAM	2,B5,B4	
001700	63631		S06	X3+B1	
	6166000003		S06	B6+3	
	13666		BX6	X6-X6	
001701	5166777776		SA6	R6-1	FORM PTR = 0
	6170001703		S07	DS3	
001702	0200001401		JP	PACK	PACK VALUE INTO BLOCK
001703		DS3	PARAM	1,B2,B3	
001712	6160001713		S06	DS4	
	0200001466		JP	HASH	GET HASH CODE IN X0
001713	5250000115	DS4	SA5	X0+HTABLE	
	76110		SX1	R1	
001714	0305001720		ZR	X5,DS6	NO DUPLICATE
	6170001716		S07	DS5	
001715	0200001454		JP	SEARCH	
001716	0460001720	DS5	ZR	R6,DS6	NO DUPLICATE
	6170001720		S07	DS6	
001717	0200001475		JP	ERASE	DESTROY DUPLICATE FORM
001720	63310	DS6	S03	X1	
	6240000115		S04	X0+HTABLE	
001721	6150001722		S05	DS7	
	0200001500		JP	CHAIN	
001722	66400	DS7	S04	R0	NULL VALUE
	0200001331		JP	FEXIT	

o
o SEGMENT SAVING FUNCTION

Address	Label	Segment	Instruction	Comment
001723		SS	PARAM 1,B2,B3	NAME OF FORM TO SEGMENT
001732	6170001733		SS0	
	0200001740		JP	FIND IT
001733		SS0	VALUE	R4
	0460001331		ZR	R6,FEXIT NO SUCH FORM
	76160		SX1	R6
001735	66340		SX3	R4
	5251000001		SA5	X1+1 NAME LENGTH
001736	6251000003		SB5	X1+3
	63555		SB5	X5+B5 START OF VALUE
001737	6170001740		SB7	SS1
	0200001421		JP	UNPACK FORM VALUE
001740	7160000155	SS1	SX6	EOS
	13777		STOREX6	R4 MARK END FOR SEG ROUTINE
	6150000001		BX7	X7-X7 INITIALIZE EXPANSION COUNT
001744	6155000001	SS2	SB5	1 SUBSTRING NUMBER
	0410001760		SB5	R5+1 NEXT SUBSTRING
	0412001744		PARAM	R5,B1,B2
001754			ZR	R1,SS3 NO MORE SUBSTRINGS
			EQ	R1,B2,SS2 EXPLICIT NULL SUBSTRING
001755	7145777776		SX4	R5-1
	20422		LX4	18
001756	7100000040		SX0	HOLE
	12004		BX0	X0+X4
001757	0200002015		JP	SEG GO PROCESS ONE SUBSTRING
001760	63674	SS3	SB6	X7+B4 EXPANDED LENGTH
	5231000001		PLNGTH	R3,B6,X2 PACKED LENGTH
001762	53410		SA3	X1+1 NAME LENGTH
	20430		SA4	X1 BLOCK LENGTH
	73440		LX4	60-36
	37543		SX4	X4
001763	7255777773		IX5	X4-X3 TOTAL-NAME
	37552		SX5	X5-4 OLD VALUE LENGTH
	76230		IX5	X5-X2 COMPARE WITH NEW
001764	76340		SX2	R3
	0325002010		SX3	R4
	37545		PL	X5,SS9 EXISTING BLOCK BIG ENOUGH
001765	63150		IX5	X4-X5 EXISTING BLOCK TOO SMALL
	6170001767		SB1	X5 NEW TOTAL BLOCKSIZE
001766	0200001515		SB7	SS4
001767	5251000001	SS4	JP	ALLOC GET NEW BLOCK
	6265000001		SA5	X1+1 NAME LENGTH
001770	10655		SB6	X5+1
	5161000001		BX6	X5
001771	6166777776	SS5	SA6	R1+1 STORE LENGTH IN NEW BLOCK
	0460001774		SB6	R6-1
001772	5055000001		ZR	R6,SS6
	10655		SA5	A5+1 MOVE PACKED NAME
001773	5069000001		BX6	X5 FROM OLD BLOCK
			SA6	A6+1 TO NEW BLOCK

001774	0200001771	JP	SS5	
002003	6160002004	PARAM	1,82,83	
		SB6	SS7	
002004	66310	JP	HASH	
	0200001466	SB3	R1	
	6240000115	SB4	X0+HTABLE	
002005	6150002006	SB5	SS8	
	0200001500	JP	CHAIN	ADD NEW BLOCK TO HASH CHAIN
002006	63610	SB6	X1	
	76110	SA1	R1	
	6170002010	SB7	SS9	
002007	0200001475	JP	ERASE	
002010	5251000001	SA5	X1+1	
	6265000002	SB6	X5+2	
002011	13666	BA6	X6-X6	
	53616	SA6	X1+86	FORM PTR = 0
	6066000001	SB6	A6+1	
002012	63430	SB4	X3	
	63520	SB5	X2	
	6170002014	SB7	SS10	
002013	0200001401	JP	PACK	PUT SEGMENTED FORM INTO BLOCK
002014	66400	SB4	R0	NULL VALUE
	0200001331	JP	EXIT	
* ROUTINE TO PROCESS A SINGLE SUBSTRING *				
002015	6163777776	SEG	SB6	R3-1
002016	6166000001	SEG1	SB6	R6+1
	56460	SA4	R6	
	56510	SA5	R1	
002017	7234777622	SEG2	SA3	X4-EOS
	0303001744	ZR	X3,SS2	RETURN TO SEGMENT STRING
002020	13345	BA3	X4-X5	
	0313002016	NZ	X3,SEG1	
002021	5055000001	SA5	A5+1	
	75352	SA3	A5-B2	
002022	0303002024	ZR	X3,SEG3	
	5044000001	SA4	A4+1	
002023	0200002017	JP	SEG2	
002024	10600	BA6	X0	
	56660	SA6	R6	STORE HOLE
	7277000001	SA7	X7+1	INCR EXPANSION COUNT
002025	65746	SB7	A4-B6	
	0470002016	ZR	R7,SEG1	
002026	7160000777	SA6	NULL	
002027	5066000001	SA6	A6+1	
	7277777776	SA7	X7-1	DECR EXPANSION COUNT
002030	64740	SB7	A4	
	65767	SB7	A6-B7	
	0570002027	NZ	R7,SEG4	
002031	64640	SB6	A4	
	0200002016	JP	SEG1	

		CALL FUNCTION			
002032		CL	PARAM	1,82,B3	NAME OF CALLED FORM
002041	6170002042		SB7	CL1	
	0200001440		JP	FINDF	
002042		CL1	VALUE	B4	
	0460001331		ZR	B6,FEXIT	
	76040		SX0	B4	
002044	5156000001		SA5	B6+1	
	63556		SB5	X5+B6	
002045	6155000003		SB5	B5+3	
	6170002047		SB7	CL2	
002046	0200001421		JP	UNPACK	
002047	66340	CL2	SB3	B4	
	5230777776		SA3	X0-1	
002050	5033000001	CL3	SA3	A3+1	LOOP COPIES FORM UP TO NEXT HOLE
	65733		SB7	A3-B3	
002051	0470002076		ZR	B7,CL6	
	7243777737		SX4	X3-HOLE	
002052	0304002057		ZR	X4,CL4	
	10633		BX6	X3	
			STOREX6	B4	
	6144000001		SB4	B4+1	
002056	0200002050		JP	CL3	
002057	20352	CL4	LX3	60-18	
	6213000001		SB1	X3+1	
			PARAM	B1,B5,B6	
002067	0450002050		ZR	B5,CL3	
	5145777776		SA4	B5-1	
002070	5044000001	CL5	SA4	A4+1	LOOP INSERTS AP INTO HOLE
	65746		SB7	A4-B6	
002071	0470002050		ZR	B7,CL3	
	10644		BX6	X4	
			STOREX6	B4	
	6144000001		SB4	B4+1	
002075	0200002070		JP	CL5	
002076	66640	CL6	SB6	B4	
	63400		SB4	X0	
	5133777776		SA3	B3-1	
002077	5033000001	CL7	SA3	A3+1	LOOP COPIES EXPANDED STRING TO VALUE AREA
	65556		SB5	A3-B6	
002100	0450001331		ZR	B5,FEXIT	
	10633		BX6	X3	
			STOREX6	B4	
	6144000001		SB4	B4+1	
002104	0200002077		JP	CL7	

*
* DELETE DEFINITION FUNCTION
*

002105	7110000000	DD	SX1	0
002106	7211000001	DD1	SX1	X1+1
	63110		SB1	X1
			PARAM	B1,B2,B3
002116	0420001331		ZR	B2,FEXIT END OF PARAMETERS
	6170002120		SB7	DD2
002117	0200001440		JP	FINDF
002120	0460002106	DD2	ZR	B6,DD1 NOT FOUND
	6170002106		SB7	DD1
002121	0200001475		JP	ERASE DESTROY FORM AND LOOP BACK

TRAC

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002122

·
· EXIT FUNCTION
·
·
EX XJ

RETURN

TRAC

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*
* DEBUG FUNCTION
*

002123

002127 0200001331

DB

DEBUG

JP

FEXIT

```

      *
      * EQUALITY-TEST FUNCTION
      *

```

002130		EQ	PARAM	1,B1,B3	
002137			PARAM	2,B2,B4	
002146	67531		SB5	B3-B1	
	67642		SB6	B4-B2	
	0556002163		NE	B5,B6,EQ3 NOT EQUAL	
002147	56110		SA1	B1	
	56220		SA2	B2	
002150	65513	EQ1	SB5	A1-B3	
	0450002153		ZR	B5,EQ2	EQUAL
	13312		BX3	X1-X2	
002151	0313002163		NZ	X3,EQ3	NOT EQUAL
	5011000001		SA1	A1+1	
002152	5022000001		SA2	A2+1	
	0200002150		JP	FQ1	
002153		EQ2	PARAM	3,B1,B2	
002162	0200002172		JP	FQ4	
002163		EQ3	PARAM	4,B1,B2	
002172		EQ4	VALUE	B4	
	0410001331		ZR	B1,FEXIT	
	56110		SA1	B1	
002174	65312	EQ5	SB3	A1-B2	
	0430001331		ZR	B3,FEXIT	
	10611		BX6	X1	
002175			STOREX6	B4	
	6144000001		SB4	B4+1	
002200	5011000001		SA1	A1+1	
	0200002174		JP	FQ5	

*
* ADD FUNCTION
*002201
002222

AD

INTREG
INTREG1,X1
2,X2

002243 36312

IX3

X1+X2

VALUE

B4

REGINT

X3,B4

002267 0200001331

JP

FEXIT

TRAC

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000000

TRAILER SELF
END

2128 STATEMENTS

252 SYMBOLS

94026

AD	0002201	8-01377
ALLOCC	0001515	12-01446, 15-01537, 20-01656, 21-01766
ALLOCC1	0001516	15-01520
ALLOCC2	0001527	15-01520, 15-01521
ALLOCC3	0001531	15-01527
ALLOCC4	0001533	15-01516
AVAIL	0000215	1-00527, 15-01515, 16-01554, 17-01602
CALLHEAD	0002364	15-01535, 16-01560, 16-01564, 18-01611, 19-01632, 26-02125
CAPx	0000021	1-00031, 1-00031, 1-00033, 1-00033, 1-00035, 1-00035, 1-00037, 1-00037
CHAIN	0001500	16-01555, 20-01721, 22-02005
CHAIN1	0001504	14-01501
CL	0002032	8-01371
CL1	0002042	23-02041
CL2	0002047	23-02045
CL3	0002050	23-02056, 23-02067, 23-02071
CL4	0002057	23-02052
CL5	0002070	23-02075
CL6	0002076	23-02051
CL7	0002077	23-02104
COMPA	0000014	3-01244
COMPD1	0001567	16-01571
COMPD2	0001572	16-01570
COMPD3	0001576	17-01574
COMPD4	0001600	17-01601
COMPD5	0001602	16-01567
C.BEAD	0000001	30-02364
C.FEAD	0000003	30-02365
C.RESTOR	0000017	30-02361
C.RETURN	0000020	30-02363
C.SAVE	0000016	30-02357
C.SELF	0000021	30-02366
DB	0002123	8-01375
DD	0002105	8-01373
DD1	0002106	24-02120, 24-02120
DD2	0002120	24-02116
DS	0001635	8-01370
DS1	0001657	20-01656
DS2	0001671	20-01667
DS3	0001703	20-01701
DS4	0001713	20-01712
DS5	0001716	20-01714
DS6	0001720	20-01714, 20-01716, 20-01716
DS7	0001722	20-01721
ENDRW	0001204	30-02371
ENDSTK	0001204	2-01206
EOS	0000155	11-01416, 12-01425, 21-01740, 22-02017
EQ	0002130	8-01376
EQ1	0002150	27-02152
EQ2	0002153	27-02150
EQ3	0002163	27-02146, 27-02151
EQ4	0002172	27-02162
EQ5	0002174	27-02200
ERASE	0001475	20-01717, 22-02007, 24-02121

ERASE1	0001477	13-01475
EX	0002122	8-01374
FBEGIN	0000060	6-01316, 7-01331, 19-01616, 20-01635, 20-01645, 20-01660, 20-01671, 20-01703, 21-01723, 21-01744, 22-01774, 23-02032, 23-02040, 24-02107, 27-02130, 27-02137, 27-02153, 27-02163, 28-02201, 28-02222, 29-02270, 29-02311
FCHAIN	0000114	2-01207, 4-01276, 4-01303, 7-01334
FCOLLIDE	0001556	3-01266, 4-01302
FEND	0000061	6-01317, 7-01332, 18-01613, 19-01616, 20-01635, 20-01645, 20-01660, 20-01671, 20-01703, 21-01723, 21-01733, 21-01745, 22-01774, 23-02032, 23-02042, 23-02060, 24-02107, 27-02130, 27-02137, 27-02153, 27-02163, 27-02172, 28-02202, 28-02223, 28-02243, 29-02271, 29-02312, 29-02332
FENTRY	0001313	4-01312
FENTRY1	0001325	6-01327
FENTRY2	0001330	6-01325
FEXIT	0001331	6-01322, 6-01327, 18-01615, 19-01634, 20-01722, 21-01734, 22-02014, 23-02043, 23-02100, 24-02116, 26-02127, 27-02173, 27-02174, 28-02267, 29-02356
FEXIT1	0001340	7-01342
FEXIT2	0001343	7-01337
FEXIT3	0001344	7-01346
FEXIT4	0001347	7-01336, 7-01340, 7-01344
FINCF	0001440	21-01732, 23-02041, 24-02117
FINDF1	0001441	12-01440
FINCF2	0001443	12-01441
FINCF3	0001447	12-01445
FINDF4	0001452	12-01451
FINCF5	0001453	12-01452
FJUMPS	0001366	6-01330
FL	0002450	1-00006, 1-00016
FNAMES	0001352	6-01324
FREE	0001540	13-01453, 13-01477
FREE1	0001543	15-01542
FREE2	0001546	15-01540
FREE3	0001551	16-01550
FREE4	0001554	16-01547
HASH	0001466	12-01440, 20-01712, 22-02003
HASH0	0001470	13-01466
HASH1	0001471	13-01473
HASH2	0001474	13-01472
HOLE	0000040	11-01405, 12-01431, 21-01756, 23-02051
HTABLE	0000115	12-01441, 13-01454, 20-01713, 20-01720, 22-02004
IDLEP	0001237	2-01211
LINEBUF	0000064	1-00062, 18-01606, 18-01614, 19-01625
LPAREN	0000010	3-01247, 3-01251, 4-01267, 4-01272
LWALL	0000111	6-01315, 7-01347, 16-01566
NULL	0000777	11-01404, 22-02026
PACK	0001401	12-01451, 19-01626, 20-01670, 20-01702, 22-02013
PACK1	0001402	11-01412, 11-01415
PACK2	0001403	11-01405, 11-01414
PACK3	0001413	11-01406, 11-01410
PACK4	0001416	11-01404
PS	0001616	8-01366
PS1	0001627	19-01625
REAFSELF	0002365	2-01204

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REGSAVE	0000040	30-02360, 30-02362
RELCAD	0001210	3-01240, 4-01276
RELOAD2	0001212	2-01213
RESTREG	0002361	15-01536, 16-01561, 16-01565, 18-01612, 19-01633, 26-02126
RETURN	0002363	25-02122
RPAREN	0000011	3-01246, 13-01253
RS	0001606	8-01367
RWALL	0000112	6-01315, 7-01350, 16-01567
SAVEREG	0002357	15-01533, 16-01556, 16-01562, 18-01607, 19-01630, 26-02123
SCAN1	0001240	2-01214, 3-01250, 3-01254, 3-01256, 3-01265, 3-01265, 4-01301, 4-01302, 4-01303, 7-01351
SCAN10	0001257	3-01244
SCAN11	0001262	3-01260
SCAN12	0001263	3-01261
SCAN1.5	0001243	3-01241, 13-01241
SCAN2	0001251	3-01243
SCAN20	0001267	3-01245
SCAN21	0001275	4-01270
SCAN22	0001276	4-01274
SCAN3	0001253	3-01251
SCAN30	0001303	3-01246
SCAN31	0001307	4-01305
SCAN32	0001310	4-01306
SCAN4	0001255	3-01247, 3-01252, 3-01253, 4-01271, 4-01272
SCOLLIDE	0001562	3-01242, 12-01427, 21-01742, 23-02054, 23-02073, 23-02102, 27-02176, 28-02250, 28-02257, 28-02265, 29-02337, 29-02346, 29-02354
SCRSZ	0001204	1-00011, 1-00014, 1-00015, 1-00016, 1-00024, 1-01204
SEARCH	0001454	13-01452, 20-01715
SEARCH1	0001455	13-01461, 13-01463
SEARCH2	0001457	13-01455
SEARCH3	0001462	13-01464
SEG	0002015	21-01757
SEG1	0002016	22-02020, 22-02025, 22-02031
SEG2	0002017	22-02023
SEG3	0002024	22-02022
SEG4	0002027	22-02030
SHARP	0000003	3-01245, 4-01270
SIZE	0000310	1-00527, 1-00530, 1-01036
SLOP	0000006	15-01521
SS	0001723	8-01372
SS0	0001733	21-01732
SS1	0001740	21-01737
SS10	0002014	22-02012
SS2	0001744	21-01754, 22-02017
SS3	0001760	21-01754
SS4	0001767	21-01765
SS5	0001771	22-01773
SS6	0001774	21-01771
SS7	0002004	22-02003
SS8	0002006	22-02005
SS9	0002010	21-01764, 22-02006
STACK	0001040	2-01205
START	0001204	1-00007

STORAGE	0000527	1-00215, 2-01205
STRDESC	0000062	19-01627
STRINGS	0000216	2-01210
SU	0002270	8-01400
TOPAS	0000110	6-01314
UNCHAIN	0001507	13-01476, 15-01530, 15-01542, 16-01550
UNCHAIN1	0001513	14-01510
UNPACK	0001421	18-01615, 21-01737, 23-02046
UNPACK1	0001422	12-01436
UNPACK2	0001424	12-01436
UNPACK3	0001434	12-01432
UNPACK4	0001436	12-01431
UNPACK5	0001437	12-01425

LOAD MAP TSS 6400 SCOPE SIMULATOR VER 1.16

FWALOAD: 000100 LWA LOAD: 002451
ROOM LEFT 043201 TRANSFER PCINT: TRAC

MODULES	LENGTH	AT ADDRESS	TYPE
TRAC	000000	000100	SUB PROGRAM

ENTRY	ADDRESS	REFERENCES AT	COMMON
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END OF FILE