

ADDRESS LENGTH
 0 3746
3746

BINARY CONTROL CARDS.

IDENT INITL
END

BLOCKS	TYPE	ADDRESS	LENGTH
ABSOLUTE*	ABSOLUTE	0	167
PROGRAM*	LOCAL	0	3601
DATA	LOCAL	3601	145

ENTRY POINTS.

ENDSYS	-	0	INIGET	-	132	PROTEX	-	160	S.START	-	357
INITYZ	-	0	CALLSYS	-	147	NUMOPS	-	137			

EXTERNAL SYMBOLS.

I.LOCK	S.FSWAP	S.CHFL	MC.IPROC	DISASTR	IPSTART	PRODUCE
LIMIT	FORSWAP	S.ECSBA	SYSRET	ACTIONL	IPWDS1	S.SAVE1
S.SYSAB	S.CHIP	S.ECSFL	E.ERROR	CAPAB	IPWDS2	S.SAVE2
INTINIA	CHIPCAL	I.BOX	PUTCAP	MKOPRN	RUNORG1	SWAPIN
INTINIB	S.ARITH	INTINIC	GETCAP	IPROC01	RUNORG2	S.IPROC
ECSINIT	ARITHER	MC.INT	ARBCAP	IPROC02	IPROC02	COMPACT

```

IDENT  INITL
*
*
*      INITIALIZE ECS AND CREATE INNITIAL OBJECTS
*
*
*      EXT      I.LOCK
TYPES  XTEXT
*
*      *****
*
*      INTSYS   XTEXT
*
*      *****
*
*      PROCSYM  XTEXT
*
*      *****
*
*      ECSACT   XTEXT
*
*      *****
*
*      OBBITS   XTEXT
*
*      *****
*
*      ENTRY    ENDSYS
*      BSS      0
*
*      EXT      LIMIT,S.SYSAB
*      EXT      INTINIA,INTINIB
*      EXT      ECSINIT
*      EXT      S.FSWAP,FORSWAP
*      EXT      S.CHIP,CHIPCAL,S.ARITH,ARITHER
*      EXT      S.CMFL,S.ECSRA,S.ECSFL
*      EXT      I.BOX
*      EXT      INTINIC
*      EXT      MC,INT,MC,IPRO
*      ENTRY    INITYZ
*
*      INITYZ   BSSZ    1
*
*      RJ      ECSINIT   INITIALIZE ECS AND ALLOCATION
*                               MECHANISM AND
*
*      RJ      BEGINIT   PATCH SYSTEM FOR OBJECT CREATION
*
*      SX6     FORSWAP   SET P-COUNTER IN FORCED SWAP X-PACK
*      LX6     36

```

0 0100000000 X

1 0100000054 +

3 7160000000 X
20644

4 5160000000 X
 7160000000 X
 5 20644
 5160000000 X
 6 7160000000 X
 20644
 7 5160000000 X

SA6
 SX6
 LX6
 SA6
 SX6
 LX6
 SA6

S.FSWAP
 CHIPCAL
 36
 S.CHIP
 ARITHR
 36
 S.ARITH

SET UP CHIP AND ARITH P-COUNTERS

*
*
*

SET UP ECS AND CH LIMITL IN EXCHANGE PACKAGES

10 5110000000 X
 6150000044
 22651
 11 5160000002 X
 5160000002 X
 12 5160000002 X
 5160000002 X

SA5
 SA1
 LX6
 SA6
 SA6
 SA6
 SA6

36
 S.CMFLI
 XI.B5
 S.CHIP+2
 S.ARITH+2
 S.FSWAP+2
 I.BOX+2

FL

13 5011000001
 22651
 14 5160000003 X
 5160000003 X
 15 5160000003 X
 5160000003 X

SA1
 LX6
 SA6
 SA6
 SA6
 SA6

AI+1
 XI.B5
 S.CHIP+3
 S.ARITH+3
 S.FSWAP+3
 I.BOX+3

EXIT MODE

16 5110000000 X
 22651
 17 5160000004 X
 5160000004 X
 20 5160000004 X
 5160000004 X

SA1
 LX6
 SA6
 SA6
 SA6
 SA6

S.ECSRA
 XI.B5
 S.CHIP+4
 S.ARITH+4
 S.FSWAP+4
 I.BOX+4

ECS RA

21 5110000000 X
 22651
 22 5160000005 X
 5160000005 X
 23 5160000005 X
 5160000005 X

SA1
 LX6
 SA6
 SA6
 SA6
 SA6

S.ECSFL
 XI.B5
 S.CHIP+5
 S.ARITH+5
 S.FSWAP+5
 I.BOX+5

ECS FL

24 6110000000 X
 13666
 25 5161000141
 5120000000 X
 26 22652
 5161000142

SA1
 SX6
 SA6
 SA6
 LX6
 SA6

LIMIT
 X6-X6
 BI+P.XPACK+1
 S.CMFLI
 X3.B5
 BI+P.XPACK+2

SET UP RA AND FL IN DUMMY EXCHANGE PACKAGE

27 5120000000 X
 5032000001
 30 10622
 10733
 5161000066
 31 5171000067

SA2
 SA3
 SX6
 SX7
 SA6
 SA7

S.SYSAB
 A2+1
 X2
 X3
 BI+P.PARAM
 BI+P.PARAM+1

FETCH ALLOC BKI CAPABILITY

AND MOVE IT TO (DUMMY) ACTUAL PARAM AREA

32	5161000070	13666		BX6 SA6	X6-X6 B1+P.PARAM+2	INITIALIZE C-LIST INDEX
33	76710	7160000053 +	*	SX6 SX7 IX6 SA6	INITYZI B1 X6-X7 B1+P.CLIST	DUMMY UP LOCAL C-LIST
	37667	5161000160	*			
34	0100000151 +		*	RJ	INICLIST	CREATE INITIAL C-LIST
			*			PUT CAPABILITY FOR SYSTEM ALLOC BK IN SYSTEM C-LIST
35	5150000131 +		*	SA5	SYSCAP+1	
	10611	7110000001		SX1	1	
36	5161000070	63410		BX6 SA6	X1 B1+P.PARAM+2	INCREMENT C-LIST INDEX
37	6151000066			SXB4 SXB5 SXB6	X1 B1+P.PARAM	
40	0200000000 X	6160000041 +	*	JP	INITYZ2 ARBCAP	
41	0100000000 X		*	RJ	INTINIA	INTERRUPT FILE CREATION
42	0100000205 +		*	RJ	INIOPS	CREATE OPERATIONS
43	6130000044 +	0400000000 X	*	SXB9 F09	*+1 EXCOMPACT	* NOW GET RID OF ANY SPACE BEFORE INITIALIZING THE INTERRUPT OBJECTS
44	0100000000 X		*	RJ	INTINIB	INTERRUPT INITIALIZATION
45	0100003540 +		*	RJ	GETCLCD	
46	5121000070			SA2	B1+P.PARAM+2	
47	5160000000 X	10622		BXA SA6	X2 =XS.IPROC	
		0100003432 +	*	RJ	INIFILE	CREATE FILES
50	0100003475 +		*	RJ	INIPROC	CREATE A PROCESS
51	0100000100 +		*	RJ	ENDINIT	UN-PATCH SYSTEM
52	0200000000 +		*	JP	INITYZ	RETURN
53	000000000000000003720		*	VFD	60/2000	DUMMY LENGTH FOR LOCAL C-LIST

*
*
*
*
*
*

THIS ROUTINE IS TO HANDLE THE RETURN FROM THE PATCHED
SYSTEM
BEFORE CALLING THE SYSTEM. ONE SHOULD SET
↑RETLINK↑ FOR THIS ROUTINE TO USE TO GET BACK

110 5120000112 +
111 0260000000 63620
112

INIRET SA2 RETLINK
SB6 X2
JP B6
*
RETLINK BSSZ 1

*
*
*
*
*
*
*
*
*
*
*

ROUTINE CALLED FROM SYSTEM PATCH
TO PUT A CAPABILITY IN THE SYSTEM C-LIST
CAPABILITY FOR THE C-LIST IS AT ↑SYSCAP↑
IF (↑SYSCAP↑) = 0 THEN WE WILL SUBSTITIUTE THE
CAPABILITY TO BE WRITTEN IN THE C-LIST AT ↑SYSCAP↑
(I.E. ON FIRST CALL, THE C-LIST ITSELF IS THE
CAPABILITY TO BE WRITTEN)

			EXT	ARBCAP	
113	5140000131 + 0314000117 +	INICAP	SA4 NZ	SYSCAP+1 X4, INICAP1	CHECK FOR 1ST CALL
114	56450 10644 5160000130 +		SA4 BX6 SA6	B5 X4 SYSCAP	STORE CAPAB AT SYSCAP
115	5145000001 10644		SA4 BX6	B5+1 X4	
116	5160000131 +		SA6	SYSCAP+1	
117	10544 76640 5160000126 +	INICAP1	BX6 SX6 SA6	X4 B4 INICAP3	SAVE B4 AND B6
120	76660 5160000127 +		SX6 SA6	B5 INICAP4	
121	6140000001 6160000123 +		SB4 SB6	I INICAP2	
122	0200000000 X		LP	ARBCAP	
123	5140000126 + 63440	INICAP2	SA4 SB4	INICAP3 X4	RECOVER B4 AND B6
124	5140000127 + 63640		SA4 SB6	INICAP4 X4	
125	0260000000		LP	B6	RETURN TO SYSTEM
126		INICAP2	BSSZ	1	
127		INICAP4	BSSZ	1	
130		SYSCAP	BSSZ	2	

* INIGET

THIS ROUTINE IS CALLED FROM A SYSTEM PATCH TO GET A CAPABILITY FROM THE SYSTEM CLIST

		ENTRY	INIGET	
132	5150000131 + 6140000000	INIGET	SA5 SYSCAP+1	.. MOT/UN FOR ARBCAP
			SB4 0	.. READ CAPABILITY
133	76660		SX6 B6	
	5160000142 +		SA6 INIGET3	.. SAVE B6 (=RETURN)
134	6160000136 +		SB6 INIGET1	.. RETURN LINK
	6150000140 +		SB5 INIGET2	.. CM ADDR TO PUT CAPAB
135	0200000000 X		JP ARBCAP	
136	5100000140 +	INIGET1	SA0 INIGET2	
	5140000142 +		SA4 INIGET3	
137	63640		SB6 X4	
	0260000000		JP B6	.. RETURN
140		INIGET2	BSS 2	.. ARBCAP PUTS CAPABILITIES HERE WHEN GETC
				PATCH IS IN EFFECT
142		INIGET3	BSS 1	.. B6 IS SAVED HERE

THIS ROUTINE ABORTS WHEN AN ERROR OCCURS WITHIN THE SYSTEM DURING INNITIALIZATION IT IS CALLED THRU THE SYSTEM PATCH AT ↑E.ERROR↑

		EXT	DISASTR
143	5160000145 +	INIERR	SA6 SAVEX6
	5170000146 +		SA7 SAVEX7
144	0100000000 X		RJ DISASTR
145		SAVEX6	BSSZ 1
146		SAVEX7	BSSZ 1

MAKE A ECS SYSTEM CALL DURING INNITIALIZATION
PARAMETER LIST FOR ECS ACTION ALREADY AT B1+P.PARAM
B5 = ECS ACTION NUMBER
B6 = RETURN LINK

ENTRY CALLSYS
EXT ACTIONL

147 76660
5160000112 +
150 0250000000 X

*
CALLSYS SX6 B6
SA6 RETLINK
JP ACTIONL+B5
*

SET RETURN FOR SYSTEM PATCH

*
*
*
*
*
*
*
*
*
*

THIS ROUTINE CREATES THE SYSTEM MASTER C-LIST
IT MUST BE CALLED BEFORE ANY OTHER OPERATIONS
WHICH CREATE OBJECTS WHICH WILL BE PUT INTO THE
MASTER C-LIST (WITH THE EXCEPTION OF THE
SYSTEM ALLOCATION BLOCK)

151
152 0100000000 X
153 5110000000 X
 10611
154 5110000000 X
 36616
155 7110000142
 36616
156 5161000071
 6160000151 +
157 6150000000
 0200000147 +

INICLIST BSSZ
RJ
SA1
BX6
SA1
IX6
SX1
IX6
SA6
SB6
SB5
JP

1
INTINIC GET INTINIT TO COMPUTE ITS NEEDS
MC.INT SPACE USED BY INTERRUPT OBJECTS
X1
MC.IPROC SPACE USED IN M CLIST BY IPROC
X1+X6
NUMOPS+3
X1+X6
B1+P.PARAM+3
INICLIST
J.CRECL
CALLSYS

207 503200001
 10611
 10722
 210 5160003600 +
 5170003577 +
 211 10633
 5160003576 +

SA3 A2+1
 BX6 X1
 BX7 X2
 SA6 =SSAVEAP1
 SA7 =SABMOT
 BX6 X3
 SA6 =SSAVEAP2

*
 0 NUMOP SET 0 * NUMBER OF OPERATIONS
 *

EXT MROPRN

*
 OPER MACRO ACTION,NO:PS,PS1,PS2,PS3,PS4,PS5,PS6,PS7,PS8,PS9,PS10
 ,PS11,PS12,PS13,PS14,PS15,PS16,PS17,PS18,PS19,PS20

IFGT NO:PS,20,1

ERR ***** TOO MANY PARAMETERS *****

01 MICRO 1.,SPS1\$
 02 MICRO 1.,SPS2\$
 03 MICRO 1.,SPS3\$
 04 MICRO 1.,SPS4\$
 05 MICRO 1.,SPS5\$
 06 MICRO 1.,SPS6\$
 07 MICRO 1.,SPS7\$
 08 MICRO 1.,SPS8\$
 09 MICRO 1.,SPS9\$
 10 MICRO 1.,SPS10\$
 11 MICRO 1.,SPS11\$
 12 MICRO 1.,SPS12\$
 13 MICRO 1.,SPS13\$
 14 MICRO 1.,SPS14\$
 15 MICRO 1.,SPS15\$
 16 MICRO 1.,SPS16\$
 17 MICRO 1.,SPS17\$
 18 MICRO 1.,SPS18\$
 19 MICRO 1.,SPS19\$
 20 MICRO 1.,SPS20\$

SA8 ABMOT * SYSTEM ALLOCATION BLOCK
 SX4 NO:PS * NUMBER OF PARAMETER SPECIFICATIONS
 SA2 SAVEAP2 * CURRENT INDEX IN MASTER C-LIST
 SX6 X2+1
 SA6 A2

*
 SA6 B1+P,PARAM+2 * SET CURRENT INDEX IN AP LIST
 * FOR USE BY PROTEK

BX2 X6

*
 SX3 ACTION
 SX7 *+1 RETURN
 EQ MROPRN

*
 SB6 QPMASK
 RJ PROTEK

```

+      BSS      0
*
ZZ     IFNE     NO:PS+0
      SA1      CAPAB+1
      BX6      X1
      SA6      BI+P.PARAM+1
INDEX  SET      0
      DUP      NO:PS
TEMP   MICRO   2*INDEX+1,2,$0102030405060706091011121314151617181920
'S
      INDIRECT #TEMP#,TEMP
      SX6      INDEX      • PS INDEX
      SA6      BI+P.PARAM+2
      PARM     #TEMP#
INDEX  SET      INDEX+1
      ENDD
ZZ     ENDIF
NUMOP SET      NUMOP+1
      ENDM
INDIRECT MACRO  X,Y
Y       MICRO  1,$X,$
      ENDM
*
UDAT   MACRO
      SB5      J.USRDAT
      ENDM
UCAP   MACRO
      LOCAL   P1,P2
      SB5      J.USRCAP
      SX6      P1
      SA6      BI+P.PARAM+3      • TYPE NUMBER
      SA1      P1
      BX6      X1
      SA6      A6+1      • OPTIONS MASK
      USE     DATA
PAR    VFD     60/P1
      USE
      ENDM
ACAP   MACRO
      LOCAL   P1
      SB5      J.ANYCAP
      SA1      PAR      .. OPTION BITS
      BX6      X1
      SA6      BI+P.PARAM+3
      USE     DATA
PAR    VFD     60/P1
      USE
      ENDM
FDAT   MACRO
      LOCAL   P1
      PARM    UDAT
      SA1     PAR

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Line	Address	Operation	Parameters	UDAT	PARM
236	6150000050		S85 J.USRDAT		4
237	6160000240 +		S86 *+1		3
	0400000147 +		EQ CALLSYS		3
		LIST -G			
		* WRITE A FILE			
240	5150003577 +	OPER	J.WRFILE,4,(UCAP,OB.WFILE,T.FILE),UDAT,UDAT,UDAT		
		* SEND AN EVENT			
266	5150003577 +	OPER	J.EVENT,2,(UCAP,OB.SNDEV,T.EVCH),UDAT		
		* GET AN EVENT			
306	5150003577 +	OPER	J.HANG,1,(UCAP,OB.GETEV,T.EVCH)		
		* CREATE A C-LIST			
323	5150003577 +	OPER	J.CRECL,3,(UCAP,OB.CRECL,T.ALLOC),UDAT,UDAT		
		* CREATE A FILE			
346	5150003577 +	OPER	J.CREFIL,4,(UCAP,OB.CREFIL,T.ALLOC),UDAT,UDAT,UDAT		
		* CREATE A FILE BLOCK			
374	5150003577 +	OPER	J.CREBLK,2,(UCAP,OB.CREBL,T.FILE),UDAT		
		* CREATE A PROCESS			
414	5150003577 +	OPER	J.CPROC,18,(UCAP,OB.CREPR,T.ALLOC),UDAT,UDAT,UDAT,(UCAP,OB.SONSP,T.CLSCD),UDAT,UDAT,UDAT,UDAT,(UCAP,OB.LOCCL,T.CLIST),(UCAP,OB.P,OB.WFILE,OB.RDFIL,OB.PLMAP,T.FILE),UDAT,UDAT,UDAT,(UCAP,OB.RDFIL,OB.PLMAP,T.FILE),UDAT,UDAT,UDAT		
		* CREATE AN EVENT CHANNEL			
524	5150003577 +	OPER	J.MKEC,3,(UCAP,OB.CREEC,T.ALLOC),UDAT,UDAT		
		* CREATE A SUBPROCESS			
547	5150003577 +	OPER	J.MKSUBP,7,(UCAP,OB.SONSP,T.CLSCD),(UCAP,OB.FATHR,T.CLSCD),UDAT,UDAT,UDAT,UDAT,(UCAP,OB.LOCCL,T.CLIST)		
		* CREATE A CLASS CODE WITH A NEW PERMANENT PART			
612	5150003577 +	OPER	J.CRECC,1,UDAT		
		* SAVE THE REGISTERS			
624	5150003577 +	OPER	J.SREG,1,UDAT		
		* RESTORE THE REGISTERS			
636	5150003577 +	OPER	J.RREG,1,UDAT		
		* DISPLAY A CAPABILITY FROM THE FULL C-LIST			
650	5150003577 +	OPER	J.DSCAP,1,(ACAP,0,0)		
		* FIND THE NTH SON OF A GIVEN SUBPROCESS			
664	5150003577 +	OPER	J.FSON,3,(UCAP,0,T.CLSCD),UDAT,UDAT		
		* COPY A CAPABILITY AND DECREASE THE OPTIONS			
707	5150003577 +	OPER	J.MOVEC,3,(ACAP,0,0),UDAT,UDAT		
		* COPY A CAPABILITY INTO THE FULL C-LIST			
731	5150003577 +	OPER	J.CAPIN,3,(UCAP,OB.CPYOT,T.CLIST),UDAT,UDAT		
		* COPY A CAPABILITY OUT OF THE FULL C-LIST			
754	5150003577 +	OPER	J.CAPOU,3,(UCAP,OB.CPYIN,T.CLIST),UDAT,UDAT		
		* SET ERROR SELECTION MASK OF GENERAL SUBPROCESS			
777	5150003577 +	OPER	J.ESMGEN,2,UDAT,(UCAP,OB.STESM,T.CLSCD)		
		* SET ERROR SELECTION MASK OF LOCAL SUBPROCESS			
1016	5150003577 +	OPER	J.ESMLOC,1,UDAT		
		* MAKE NEW, ORDER 1, OPERATION			
1030	5150003577 +	OPER	J.MKOPER,5,(UCAP,OB.ALORD,T.ALLOC),UDAT,UDAT,(UCAP,OB.CALOP,T.CLSCD),UDAT		
		* SUBPROCESS RETURN			
1063	5150003577 +	OPER	J.RETURN,0		
		* SUBPROCESS FRETURN			
1071	5150003577 +	OPER	J.FRETUR,0		

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1077 5150003577 + * FIX A CAPABILITY PARAMETER SPECIFICATION
      OPER J.FIXCAP,3,(UCAP,OB,CHOPT,T,OPER),UDAT,(ACAP,0)
1123 5150003577 + * FIX A DATUM PARAMETER SPECIFICATION
      OPER J.FIXDAT,3,(UCAP,OB,CHTYP,T,OPER),UDAT,UDAT
1146 5150003577 + * CHANGE AN ANY PS TO UDAT
      OPER J.USRDAT,2,(UCAP,OB,CHTYP,T,OPER),UDAT
1166 5150003577 + * CHANGE AN ANY PS TO UCAP
      OPER J.USRCAP,4,(UCAP,OB,CHTYP,T,OPER),UDAT,UDAT,UDAT
1214 5150003577 + * CHANGE AN ANY PS TO ACAP
      OPER J.ANYCAP,3,(UCAP,OB,CHTYP,T,OPER),UDAT,UDAT
1237 5150003577 + * ADD OPTION BITS TO UCAP PARAMETER
      OPER J.ADDOPT,3,(UCAP,OB,CHOPT,T,OPER),UDAT,UDAT
1262 5150003577 + * MAKE A COPY OF AN OPERATION
      OPER J.COPYOP,3,(UCAP,OB,ALORD,T,ALLOC),UDAT,UDAT,(UCAP,
      OB,ADDOR,T,OPER)
1305 5150003577 + * CHECK FOR MISSING FILE BLOCKS
      OPER J.CHKBLK,2,(UCAP,0,T,FILE),UDAT
1325 5150003577 + * DELETE A FILE BLOCK
      OPER J.DELBLK,2,(UCAP,OB,DELBL,T,FILE),UDAT
1345 5150003577 + * DELETE A FILE
      OPER J.DELFIL,1,(UCAP,OB,DSTRY,T,FILE)
1362 5150003577 + * READ THE SHAPE NUMBERS OF A FILE
      OPER J.REDSHP,3,(UCAP,0,T,FILE),UDAT,UDAT
1405 5150003577 + * SET A MAP ENTRY TO EMPTY
      OPER J.MAPZRO,3,(UCAP,OB,CHMAP,T,CLSCD),UDAT,(UCAP,OB,PLMA
      P,T,FILE)
1432 5150003577 + * SET A ZERO MAP ENTRY TO A READ-ONLY MAP ENTRY
      OPER J.MPCHRO,6,(UCAP,OB,CHMAP,T,CLSCD),UDAT,(UCAP,OB,PLM
      AP,OB,RDFIL,T,FILE),UDAT,UDAT,UDAT
1470 5150003577 + * SET A ZERO MAP ENTRY TO A READ-WRITE MAP ENTRY
      OPER J.MPCHRW,6,(UCAP,OB,CHMAP,T,CLSCD),UDAT,(UCAP,OB,PLM
      AP,OB,RDFIL,OB,WFILE,T,FILE),UDAT,UDAT,UDAT
1526 5150003577 + * MOVE A FILE BLOCK
      OPER J.MOVBK,4,(UCAP,OB,RDFIL,OB,DELBL,T,FILE),UDAT,(UCA
      P,OB,WFILE,OB,CREBL,T,FILE),UDAT
1556 5150003577 + * DISPLAY A MAP ENTRY
      OPER J.DISHAP,3,(UCAP,0,T,CLSCD),UDAT,UDAT
1601 5150003577 + * JUMP RETURN
      OPER J.JPRET,2,(UCAP,OB,SPRET,T,CLSCD),UDAT
1621 5150003577 + * CHANGE A UNIQUE NAME
      OPER J.NEWUN,3,(ACAP,OB,CHNAM,0),UDAT,UDAT
1643 5150003577 + * DISPLAY THE ENTIRE STACK
      OPER J.DISPST,2,UDAT,UDAT
1660 5150003577 + * DISPLAY A SPECIFIC STACK ENTRY
      OPER J.DISSEN,2,UDAT,UDAT
1675 5150003577 + * DSFRAP DISPLAYS AN ENTRY FROM THE FULL MAP
      OPER J.DSFRAP,2,UDAT,UDAT
1712 5150003577 + * DELETE A C-LIST
      OPER J.DELCL,1,(UCAP,OB,DSTRY,T,CLIST)
      *
      * SEND PROCESS INTERRUPT
      *

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1727 5150003577 + OPER J.PINT,3,(UCAP,OB,SDINT,T.PROC),(UCAP,OB,INTSP,T.CLSC
      *D),UDAT
      *
      * ADD AN ORDER TO AN OPERATION
1754 5150003577 + OPER J.ADDORD,5,(UCAP,OB,ALORD,T.ALLOC),UDAT,(UCAP,OB,ADDO
      *R,T.OPER),(UCAP,OB,CALOP,T.CLSCD),UDAT
      * CREATE COMPLETE CAPABILITY FOR FIRST OBJECT OF ALLOC BK
2011 5150003577 + OPER J.CCLOA,3,(UCAP,OB,GOD,T.ALLOC),UDAT,UDAT
      *
      * TRANSFER FUNDS OR SPACE FROM ONE ALLOCATION BK TO ANOTHER
2034 5150003577 + OPER J.DONATE,3,(UCAP,OB,GIVE,T.ALLOC),(UCAP,OB,GET,T.ALLO
      *C),UDAT
      * CREATE ALLOCATION BLOCK
2061 5150003577 + OPER J.CRALBK,2,(UCAP,OB,CREAB,T.ALLOC),UDAT
      * MODIFY P-COUNTER OF SPECIFIED SUBPROCESS
2101 5150003577 + OPER J.MODPC,3,(UCAP,OB,PCNT,T.CLSCD),UDAT,UDAT
      * DESTROY A PROCESS
2124 5150003577 + OPER J.DLPRO,1,(UCAP,OB,DSTRY,T.PROC)
      * DISPLAY A PROCESS DESCRIPTOR
2141 5150003577 + OPER J.DPROD,3,(UCAP,0,T.PROC),UDAT,UDAT
      * CLEAR THE DIRECT ACCESS ECS MAP ENTRY
2164 5150003577 + OPER J.CLRDAE,1,(UCAP,OB,CHMAP,T.CLSCD)
      * SET THE DIRECT ACCESS ECS MAP ENTRY
2201 5150003577 + OPER J.SETDAE,4,(UCAP,OB,DAE,T.CLSCD),(UCAP,OB,FDAE,T.FILE
      *),UDAT,UDAT
      * DESTROY SUBPROCESS
2231 5150003577 + OPER J.DELSUB,1,(UCAP,OB,DSTRY,T.CLSCD)
      * SET INTERRUPT-INHIBIT BIT
2246 5150003577 + OPER J.SETIIB,0
      * CLEAR INTERRUPT-INHIBIT BIT
2254 5150003577 + OPER J.CLRITIB,0
      * GET AN EVENT OR FRETURN
2262 5150003577 + OPER J.GETEVF,1,(UCAP,OB,GETEVF,T.EVCH)
      * DESTROY AN ALLOCATION BLOCK
2277 5150003577 + OPER J.DELAB,1,(UCAP,OB,DSTRY,T.ALLOC)
      *
      * GET EVENT FROM MULTIPLE CHANNELS OR HANG
2314 5150003577 + OPER J.MGETH,2,UDAT,UDAT
      * GET EVENT FROM MULTIPLE CHANNELS OR F_RETURN
2331 5150003577 + OPER J.MGETF,2,UDAT,UDAT
      * DESTROY AN EVENT CHANNEL
2346 5150003577 + OPER J.DELEC,1,(UCAP,OB,DSTRY,T.EVCH)
      * DISPLAY CLOCK TIMES IN USER CORE
2363 5150003577 + OPER J.DCLOX,1,UDAT
      * SET TEMPORARY PART OF CLASS CODE
2375 5150003577 + OPER J.NWTMP,3,(UCAP,OB,TEMP,T.CLSCD),UDAT,UDAT
      * DISPLAY ALLOCATION BLOCK
2420 5150003577 + OPER J.DSPAB,3,(UCAP,0,T.ALLOC),UDAT,UDAT
      * CHANGE A NONE PS TO BLOCK DATA
2443 5150003577 + OPER J.BLKDAT,3,(UCAP,0,T.OPER),UDAT,UDAT
      * CHANGE A NONE PS TO BLOCK CAPABILITY
2466 5150003577 + OPER J.BLKCAP,3,(UCAP,0,T.OPER),UDAT,UDAT
      * DISPLAY AN OPERATION
2511 5150003577 + OPER J.DISPOP,3,(UCAP,0,T.OPER),UDAT,UDAT
    
```

```

* USER INITIATED ERROR
2534 5150003577 + OPER J.USRER,2,UDAT,UDAT
* RETURN WITH PAARAMETERS
2551 5150003577 + OPER J.RETPAR,2,UDAT,UDAT
* RETURN DATE AND TIME
2566 5150003577 + OPER J.TIMDT,0
* CREATE A CAPABILITY CREATING AUTHORIZATION
2574 5150003577 + OPER J.CAGEN,1,UDAT
* CREATE A CAPABILITY
2606 5150003577 + OPER J.CGEN,3,UDAT,(UCAP,0,T.CAUTH),UDAT
* DISPLAY SUBPROCESS DESCRIPTOR
2630 5150003577 + OPER J.DSPSP,3,(UCAP,0,T.CLSCD),UDAT,UDAT
* TEST AND RESET DIRTY BIT
2653 5150003577 + OPER J.TRDB,2,(UCAP,0B,TRDB,T.FILE),UDAT
* INCREMENT CHARGE RATE IN ALLOCATION BLOCK
2673 5150003577 + OPER J.INCHR,2,(UCAP,0B,INCHR,T.ALLOC),UDAT
* DISPLAY ARBITRARY OBJECT IN BIZARRE FASHION
2713 5150003577 + OPER J.DSPOB,3,(ACAP,0,0),UDAT,UDAT
* DISPLAY ALLOCATOR CONSTANTS
2735 5150003577 + OPER J.DSPALC,2,UDAT,UDAT
* CHANGE A MAP ENTRY, NEW ENTRY IS READ-WRITE
2752 5150003577 + OPER J.CHMPRW,7,(UCAP,0B,CHMAP,T.CLSCD),UDAT,(UCAP,0B,PLM
*AP*0B,RDFIL*0B,WFILE,T.FILE),UDAT,UDAT,UDAT,(UCAP,0B,PLMAP,T.FILE)
* CHANGE A MAP ENTRY, NEW ENTRY IS READ ONLY
3015 5150003577 + OPER J.CHMPRO,7,(UCAP,0B,CHMAP,T.CLSCD),UDAT,(UCAP,0B,PLM
*AP*0B,RDFIL,T.FILE),UDAT,UDAT,UDAT,(UCAP,0B,PLMAP,T.FILE)
* DISPLAY SYSTEM CLOCKS IN USER CORE
3060 5150003577 + OPER J.DSCLX,1,UDAT
*
* SPECIAL RETURN: DECREMENT P COUNTER
3072 5150003577 + OPER J.SPRET,0
*
* ZERO A CAPABILITY
3100 5150003577 + OPER J.CPZRO,1,UDAT
* MOVE CP TIME TWIXT FATHER AND SON AB
3112 5150003577 + OPER J.MOVCP,3,(UCAP,0B,GIVCP,T.ALLOC),(UCAP,0B,GETCP,T.A
*LLLOC),UDAT
* MOVE MOT SLOTS TWIXT FATHER AND SON AB
3137 5150003577 + OPER J.MOVMT,3,(UCAP,0B,GIVMT,T.ALLOC),(UCAP,0B,GETMT,T.A
*LLLOC),UDAT
* INCREMENT CHARGE METER ON AB
3164 5150003577 + OPER J.INMTR,2,(UCAP,0B,INMTR,T.ALLOC),UDAT
*
* DESTROY AN OPERATION
3204 5150003577 + OPER J.DLOPR,1,(UCAP,0B,DSTRY,T.OPER)
* STEAL ECS SPACE
3221 5150003577 + OPER J.GRAB,4,(UCAP,0,T.ALLOC),(UCAP,0,T.ALLOC),(UCAP,0,T
*LLLOC),UDAT
* MOVE TIME TO PROCESS TIMER
3253 5150003577 + OPER J.CPUIN,3,(UCAP,0,T.ALLOC),(UCAP,0,T.PROC),UDAT
* REMOVE TIME FROM PROCESS TIMER
3300 5150003577 + OPER J.CPOUT,3,(UCAP,0,T.ALLOC),(UCAP,0,T.PROC),UDAT
* SET PROCESS MESSAGE MECHANISM

```

```

3325 5150003577 +          OPER      J.STMSG,3,(UCAP,0,T.PROC),(UCAP,08,SNDEV,T.EVCH),UDA
*
* CLEAR PROCESS MESSAGE MECHANISM
3352 5150003577 +          OPER      J.CLRMG,1,(UCAP,0,T.PROC)
* ARM INTERRUPTS FOR A SUBPROCESS
3367 5150003577 +          OPER      J.ARMIT,1,(UCAP,0,T.CLSCD)
* DISARM INTERRUPTS FOR A SUBPROCESS
3404 5150003577 +          OPER      J.DISIT,1,(UCAP,0,T.CLSCD)
*
*
3421 5110003600 +          SA1       SAVEAP1
      5120003577 +          SA2       ABORT
3422 5130003576 +          SA3       SAVEAP2
      10611                  BX6      X1
      10722                  BX7      X2
3423 5161000066          SA6       BT+D,PARAM
      5076000001          SA7       A6+1
3424 10633                BX6      X3
      5067000001          SA6       A7+1
*
*
*
      137 NUMOPS ENTRY NUMOPS
      EQU  EQU NUMOP
*
*
3425 0200000205 +          JP       INIOPS
*

```

```

3426 00000000000000000050 X BLKSIZ VFD 60/=XIPROCSZ+40
EXT IPROC01,IPROC02,IPSTART,IPWDS1,IPWDS2
*
3427 FSAVE1 BSS 1
3430 FSAVE2 BSS 1
3431 FSAVE3 BSS 1
*
3432 INIFILE BSSZ 1
3433 5111000070 SA1 B1+P.PARAM+2 INCREMENT C-LIST INDEX
7261000001 SX6 X1+1
3434 54610 SA6 A1
*
* SET UP TO CREATE A FILE
3435 5066000001 SA6 1 NUMBER OF LEVELS IN THE FILE
7160000001 SA6 A1+1
*
3436 5066000001 SA6 BLKSIZ
SA6 A6+1
*
3437 6160003440 SB5 J.CREFFIL
0200000147 * SB6 INIFILE1
LB CALLSYS
*
3440 5110000000 X INIFILE1 SA1 CAPAB MOVE CAPABILITY FOR USE BY INNITIAL
10611 SX6 X1 PROCESS CREATION
3441 5160003562 * SA6 FILE1
5160003565 * SA6 FILE2
3442 5110000001 X SA1 CAPAB+1
10611 SX6 X1
3443 5160003563 * SA6 FILE1+1
5160003566 * SA6 FILE2+1
*
3444 5111000066 SA1 B1+P.PARAM
5121000067 SA2 B1+P.PARAM+1
3445 5131000070 SA3 B1+P.PARAM+2
10611 SX6 X1
10722 SX7 X2
3446 5160003427 * SA6 FSAVE1
5176003430 * SA7 FSAVE2
3447 73630 SX6 X3
5160003431 * SA6 FSAVE3
*
3450 5110000000 X SA1 CAPAB
5120000001 X SA2 CAPAB+1
3451 10611 SX6 X1
10722 SX7 X2
3452 5171000067 SA6 B1+P.PARAM
13666 SA7 B1+P.PARAM+1
3453 5161000070 SX6 X4-X6
SA6 B1+P.PARAM+2
*
6160000006 SB5 J.CREBLK CALL CREABLK

```

3454	6160003455 + 0200000147 +		SB6 JP	INIFILE2 CALLSYS	
3455	13666 5161000070	* INIFILE2	BX6 SA6	X6-X6 BI+P.PARAM+2	SET UP FOR 1ST FILE WRITE FILE ADDRESS
3456	5160003564 + 7160000000 X		SA6 SX6	FILADR1 IBROCO1	CM ADDRESS
3457	5161000071 7160000000 X		SA6 SX6	BI+P.PARAM+3 IPWDS1	WORD COUNT
3460	5161000072 6150000007		SA6 SB5	BI+P.PARAM+4 J.WRFILE	WRITE
3461	6160003462 + 0200000147 +		SB6 JP	INIFILE3 CALLSYS	
3462	7160000000 X 726A000005	* INIFILE3	SX6 SX6	IPWDS1 X6+5	2ND FILE WRITE WORDS WRITTEN ALREADY
3463	5161000070 5160003567 +		SA6 SA6	BI+P.PARAM+2 FILADR2	FILE ADDRESS
3464	7160000000 X 5161000071		SX6 SA6	IBROCO2 BI+P.PARAM+3	CM ADDRESS
3465	7160000000 X 5161000072		SX6 SA6	IPWDS2 BI+P.PARAM+4	WORD COUNT
3466	6150000007 6160003470 +		SB5 SB6	J.WRFILE INIFILE4	WRITE
3467	0200000147 +		JP	CALLSYS	
3470	5110003427 + 5120003430 +	* INIFILE4	SA1 SA2	FSAVE1 FSAVE2	RESTORE P.PARAM THEN P.PARAM+3
3471	5130003431 + 10611 10722		SA3 BX6 BX7	FSAVE3 X1 X2	
3472	5161000066 5171000067		SA6 SA7	BI+P.PARAM BI+P.PARAM+1	
3473	10633 5161000070		BX6 SA6	X2 BI+P.PARAM+2	
3474	0200003432 +		JP	INIFILE	


```

13666 *
3520 5066000001 * BX6 X6-X6 CORE ADDRESS
* KLUDGE TO GET ARROUND LOADER REFUSAL
* TO LINK TO +RUNORG1 WITH VALUE = 0
*
7160000000 X * SA6 A6+1 WORD COUNT
3521 5066000001 * SX6 IPWDS1
SA6 A6+1
*
5140003565 + * SA4 FILE2
10644 BX6 X4
3522 5066000001 SA6 A6+1
5140003565 + SA6 FILE2+1
10644 BX6 X4
3524 5066000001 SA6 A6+1
*
5140003567 + * SA4 FILEADR2
10644 BX6 X4
3525 5066000001 SA6 A6+1
*
7160000000 X * SX6 RUNORG2 CORE ADDRESS
5066000001 SA6 A6+1
*
7160000000 X * SX6 IPWDS2 CORE COUNT
5066000001 SA6 A6+1
*
* CALL THE SYSTEM
6160003532 + * SB6 INIPROC1 RETURN LINK
6150000002 * SB5 J.CPROC
3531 0200000147 + * JP CALLSYS
*
* MOVE TIME TO INITIAL PROCESS: CAP FOR MAB ALREADY AT
* B.PASAM+0.1; FETCH CAP FOR IPROC
3532 5150000131 + INIPROC1 SA5 SYSCAP+1 . SET UP REGS FOR ARBCAP
5111000070 SA1 B1+P.PARAM+2 . INDEX WHERE CAP IS
3533 66400 SB4 B0 . FETCH (NOT STORE)
64510 SB5 B1 . TARGET ADDR FOR CAP
3534 0200000000 X * SB6 INIPROC2 . RETLINK
43601 JP ARBCAP . MOVE CAP TO P.PARAM+2,3
3535 20636 INIPROC2 BX6 1 . SET UP DONATION
LX6 30
5161000072 SA6 B1+P.PARAM+4
3536 6160003475 + SB6 INIPROC
6150000230 SB5 J.CPUIN
3537 0200000147 + JP CALLSYS

```

```

*
* GET INITIAL CLASS CODE FOR INITIAL PROCESS
* STORE CALSS CODE AT ↑PROCLCD↑ FOR ↑INIPROC↑
*
3540 GETCLCD BSS I
3541 5111000066 SA1 B1+P.PARAM SAVE ALLOCATION BLOCK CAPABILITY
      5021000001 SA2 A1+1
3542 10611 BX6 X1
      10722 BX7 X2
      5160003556 + SA6 SAVEALL
3543 5170003557 + SA7 SAVEALL+I
*
3544 7261000001 SA1 B1+P.PARAM+2 INCREMENT C-LIST INDEX AND
      5161000066 SA6 X1+1 AT ACTUAL PARAM 1
      SA6 B1+P.PARAM
*
3545 6150000015 SB5 J.CRECC CREATE CLASS CODE
3546 0200000147 + SB6 GETCCI
      SB6 CALLSYS
*
3547 5150000131 + GETCCI SB5 SYSCAP+1 RECOVER CLASSCODE BY
      5111000066 SA1 B1+P.PARAM CALLING↑ARBCAP↑
3550 66400 SB4 BC
      6150003560 + SB5 PROCLCD
3551 6160003552 + SB6 GETCCI
      0200000000 X CB ARBCAP
*
3552 5111000066 GETCCR SA1 B1+P.PARAM RESTORE ACTUAL PARAM AREA
      5120003556 + SA2 SAVEALL
3553 5130003557 + SA3 SAVEALL+I
      10622 BX6 X2
      10723 BX7 X3
3554 54610 SA6 A1
      5076000001 SA7 A1+I
      10611 BX6 A1
3555 5067000001 SA6 A1+I
      0200003546 + CB GETCLCD ALL DONE
*
3556 SAVEALL BSSZ 0

```

```

*
*
*
3560 1 NUMCHNO EQU 1
      12 STACKSZ EQU 10
      PROCLCD BSSZ 2
      4 NUMAP EQU 4
      50 COM'BUF EQU 40
      50 X FIELDL EXT IPROC SZ
      FILE1 EQU IPROC SZ+40
      2 BSSZ 2
3564 FILADRI BSSZ 1

```

3565	0	RWFLG1	EQU	0
		FILF2	BSSZ	2
3567		FILADR2	BSSZ	1
3570	000000000000000000000004	OPMASK	VFD	60/4B
		*		
	0	RWFLG2	EQU	0

. OPTION BIT MASK FOR ECS ACTIONS: USED
IN PROTEK

```

*
*
EXT      PRODUCE•S.SAVE1•S.SAVE2•SWAPIN
ENTRY
*
3571 6170003573 + S•START SB7      STARTI
      7160000001   SX6      I
3572 5160000000 X SA6      I•LOCK   SET INTERRUPT LOCKOUT FOR SCHEDULER
      0200000000 X JP        PRODUCE   CALL SCHEDULER
*
3573 13666        STARTI BX6      X6=X6    CLEAR PPU LOCK OUT
      5160000000 X SA6      I•LOCK
      10711       BX7      X1
3574 5170000000 X SA7      S•SAVE1  SAVE ECS ADDR OF PROC
*
      10622       BX6      X2
3575 5160000000 X SA6      S•SAVE2
*
      0200000000 X JP        SWAPIN
*
3746                                END

```

```

36377 STORAGE USED      5615 STATEMENTS      494 SYMBOLS      000101 INVENTED SYMBOLS
6600 ASSEMBLY      37.195 SECONDS      3210 REFERENCES

```

I N I T L
SYMBOLIC REFERENCE TABLE.

ABMOT	3577	PROGRAM*	14/05 S	17/32	18/06	18/37	19/17	19/45	20/18	20/52
			16/15	17/34	18/08	18/39	19/19	19/47	20/20	21/01
			17/06	17/36	18/10	18/42	19/21	19/49	20/22	21/04
			17/08	17/38	18/12	18/44	19/23	19/51	20/25	21/06
			17/10	17/40	18/14	18/46	19/26	19/53	20/28	21/08
			17/12	17/42	18/17	18/48	19/28	20/02	20/31	21/12
			17/14	17/44	18/19	18/50	19/30	20/04	20/34	
			17/16	17/46	18/21	19/01	19/32	20/06	20/36	
			17/18	17/48	18/23	19/05	19/34	20/08	20/39	
			17/23	17/51	18/25	19/08	19/37	20/10	20/42	
			17/25	17/53	18/28	19/10	19/39	20/12	20/45	
			17/28	18/02	18/31	19/13	19/41	20/14	20/47	
			17/30	18/04	18/34	19/15	19/43	20/16	20/50	
			10/04							
			4/20	8/30	9/14	25/38	26/25			
ACTIONL	0	EXTERNAL*								
ARBCAP	0	EXTERNAL*								
ARITHR	0	EXTERNAL*								
BEGINIT	54	PROGRAM*	2/05							
BEGIN1	74	PROGRAM*	2/50	5/12 L	5/41					
BEGIN2	75	PROGRAM*	5/15 S	5/49 L	6/06					
BEGIN3	76	PROGRAM*	5/22 S	5/50 L	6/10					
BEGIN4	77	PROGRAM*	5/29 S	5/51 L	6/14					
BLKSIZ	3426	PROGRAM*	5/36 S	5/52 L	6/18					
			22/01 L	22/18						

INITIAL SYMBOLIC REFERENCE TABLE.

CALLSYS	147	PROGRAM*	9/52 E	17/22	17/43	18/20	18/45	19/25	20/11	20/41
			10/02 L	17/22	17/43	18/20	18/45	19/25	20/13	20/41
			11/22	17/22	17/45	18/22	18/47	19/27	20/13	20/43
			13/16	17/22	17/45	18/24	18/47	19/33	20/13	20/43
			16/41	17/22	17/47	18/24	18/49	19/35	20/15	20/46
			16/46	17/22	17/50	18/24	18/49	19/38	20/15	20/49
			16/51	17/22	17/50	18/27	18/51	19/38	20/17	20/49
			17/03	17/22	17/50	18/27	19/03	19/40	20/17	20/49
			17/07	17/22	17/50	18/27	19/03	19/40	20/19	20/49
			17/07	17/24	17/50	18/30	19/03	19/42	20/19	20/51
			17/07	17/24	18/03	18/30	19/07	19/44	20/19	20/51
			17/07	17/24	18/03	18/30	19/07	19/46	20/21	20/51
			17/09	17/27	18/03	18/30	19/07	19/46	20/21	20/53
			17/09	17/27	18/05	18/30	19/07	19/46	20/24	20/53
			17/11	17/27	18/05	18/30	19/07	19/48	20/24	20/53
			17/13	17/27	18/05	18/33	19/09	19/48	20/24	21/03
			17/13	17/27	18/07	18/33	19/09	19/48	20/24	21/03
			17/13	17/27	18/07	18/33	19/09	19/50	20/24	21/03
			17/15	17/27	18/09	18/33	19/12	19/50	20/24	21/05
			17/15	17/29	18/09	18/33	19/12	19/50	20/24	21/07
			17/15	17/31	18/09	18/33	19/12	19/52	20/27	21/09
			17/15	17/33	18/09	18/36	19/14	19/52	20/27	22/23
			17/17	17/35	18/11	18/36	19/14	19/52	20/27	23/02
			17/17	17/37	18/11	18/36	19/16	20/01	20/27	23/13
			17/22	17/37	18/11	18/36	19/16	20/01	20/27	23/26
			17/22	17/37	18/13	18/38	19/16	20/01	20/27	25/29
			17/22	17/39	18/13	18/38	19/18	20/03	20/27	25/44
			17/22	17/39	18/13	18/38	19/20	20/03	20/29	26/18
			17/22	17/39	18/16	18/40	19/20	20/05	20/35	
			17/22	17/41	18/16	18/40	19/20	20/05	20/38	
			17/22	17/41	18/16	18/43	19/22	20/09	20/38	
			17/22	17/41	18/18	18/43	19/25	20/11	20/38	
			17/22	17/43	18/18	18/43	19/25	20/11	20/41	
CAPAS	0	EXTERNAL*	16/28	17/33	18/09	18/38	19/16	19/46	20/19	20/53
			17/07	17/35	18/11	18/40	19/18	19/48	20/21	21/03
			17/09	17/37	18/13	18/43	19/20	19/50	20/24	21/05
			17/11	17/39	18/15	18/45	19/22	19/52	20/27	21/07
			17/13	17/41	18/18	18/47	19/25	20/01	20/29	21/09
			17/15	17/43	18/20	18/49	19/27	20/03	20/35	22/25
			17/17	17/45	18/22	18/51	19/33	20/05	20/38	22/29
			17/22	17/47	18/24	19/03	19/35	20/09	20/41	22/44
			17/24	17/50	18/27	19/07	19/38	20/11	20/43	22/45
			17/27	18/03	18/30	19/09	19/40	20/13	20/46	
			17/29	18/05	18/33	19/12	19/42	20/15	20/49	
			17/31	18/07	18/36	19/14	19/44	20/17	20/51	
CAPGET	73	PROGRAM*	5/37	5/47 L						
CAPPAT	72	PROGRAM*	5/30	5/46 L						
CHIPCAL	0	EXTERNAL*	3/02							
COMPACT	0	EXTERNAL*	4/27							
COMPBUF	50		24/28	26/49 D						
DISASTR	0	EXTERNAL*	9/36							
ECSINIT	0	EXTERNAL*	2/47							
ENDINIT	100	PROGRAM*	4/41	6/05 L	6/22					

INITIAL
SYMBOLIC REFERENCE TABLE.

ENDSYS	0	PROGRAM*	2/31 E	2/32 L			
ERRPAT	71	PROGRAM*	5/23	5/45 L			
E.ERROR	0	EXTERNAL*	5/20	6/12 S			
FIELDL	50	EXTERNAL*	24/31	26/51 D			
FILADR1	3564	PROGRAM*	23/06 S	24/51	26/53 L		
FILADR2	3567	PROGRAM*	23/18 S	25/16	27/03 L		
FILE1	3562	PROGRAM*	22/27 S	22/31 S	24/44	24/47	26/52 L
FILE2	3565	PROGRAM*	22/28 S	22/32 S	25/09	25/12	27/02 L
FORSKAP	0	EXTERNAL*	2/32				
FSAVE1	3427	PROGRAM*	22/04 L	22/39 S	23/28		
FSAVE2	3430	PROGRAM*	22/05 L	22/40 S	23/29		
FSAVE3	3431	PROGRAM*	22/06 L	22/42 S	23/30		
GETCAP	0	EXTERNAL*	5/34	6/20 S	13/03		
GETCC1	3547	PROGRAM*	26/17	26/20 L			
GETCC2	3552	PROGRAM*	26/24	26/27 L			
GETCLCD	3560	PROGRAM*	4/31	26/04 L	26/36		

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16/31 D	17/22	17/47 D	18/22	18/47 D	19/25	20/05 D	20/29
16/31	17/22 D	17/47	18/22 D	18/47	19/25 D	20/05	20/29 D
16/42 D	17/22	17/47 D	18/22	18/47 D	19/25	20/05 D	20/29 D
16/42	17/22 D	17/47	18/24 D	18/47	19/25 D	20/05	20/35 D
16/47 D	17/22	17/50 D	18/24	18/47 D	19/25	20/05 D	20/35 D
16/47	17/22 D	17/50	18/24 D	18/47	19/25 D	20/05	20/35 D
16/52 D	17/22	17/50 D	18/24	18/49 D	19/25	20/09 D	20/35 D
16/52	17/24 D	17/50	18/24 D	18/49	19/27 D	20/09	20/38 D
17/04 D	17/24	17/50 D	18/24	18/49 D	19/27	20/09 D	20/38 D
17/04	17/24 D	17/50	18/24 D	18/49	19/27 D	20/09	20/38 D
17/07 D	17/24	17/50 D	18/24	18/49 D	19/27	20/11 D	20/38 D
17/07	17/24 D	17/50	18/27 D	18/49	19/33 D	20/11	20/38 D
17/07	17/24	17/50 D	18/27	18/51 D	19/33	20/11 D	20/38 D
17/07	17/24 D	17/50	18/27 D	18/51	19/33 D	20/11	20/38 D
17/07	17/24	17/50 D	18/27	18/51 D	19/33	20/11 D	20/38 D
17/07	17/27 D	17/50	18/27 D	18/51	19/35 D	20/11	20/41 D
17/07	17/27	18/03 D	18/27	19/03 D	19/35	20/11 D	20/41 D
17/07	17/27 D	18/03	18/27 D	19/03	19/35 D	20/11	20/41 D
17/07	17/27	18/03 D	18/27	19/03 D	19/35	20/13 D	20/41 D
17/07	17/27 D	18/03	18/30 D	19/03	19/38 D	20/13	20/41 D
17/09 D	17/27	18/03 D	18/30	19/03 D	19/38	20/13 D	20/41 D
17/09	17/27 D	18/03	18/30 D	19/03	19/38 D	20/13	20/41 D
17/09 D	17/27	18/03 D	18/30	19/03 D	19/38	20/13 D	20/41 D
17/09	17/27 D	18/03	18/30 D	19/03	19/38 D	20/13	20/41 D
17/09 D	17/27	18/05 D	18/30	19/07 D	19/38	20/13 D	20/43 D
17/09	17/27 D	18/05	18/30 D	19/07	19/40 D	20/13	20/43 D
17/11 D	17/27	18/05 D	18/30	19/07 D	19/40	20/15 D	20/43 D
17/11	17/27 D	18/05	18/30 D	19/07	19/40 D	20/15	20/43 D
17/11 D	17/27	18/05 D	18/30	19/07 D	19/40	20/15 D	20/43 D
17/11	17/27 D	18/05	18/30 D	19/07	19/40 D	20/15	20/46 D
17/13 D	17/27	18/05 D	18/30	19/07 D	19/40	20/15 D	20/46 D
17/13	17/29 D	18/05	18/30 D	19/07	19/42 D	20/15	20/46 D
17/13 D	17/29	18/07 D	18/30	19/07 D	19/42	20/17 D	20/46 D
17/13	17/29 D	18/07	18/33 D	19/07	19/42 D	20/17	20/49 D
17/13 D	17/29	18/07 D	18/33	19/07 D	19/42	20/17 D	20/49 D
17/13	17/31 D	18/07	18/33 D	19/07	19/44 D	20/17	20/49 D
17/13	17/31 D	18/07 D	18/33	19/09 D	19/44	20/17 D	20/49 D
17/13	17/31 D	18/07	18/33 D	19/09	19/44 D	20/17	20/49 D
17/15 D	17/31	18/09 D	18/33	19/09 D	19/44	20/19 D	20/49 D
17/15	17/33 D	18/09	18/33 D	19/09	19/46 D	20/19	20/49 D
17/15 D	17/33	18/09 D	18/33	19/09 D	19/46	20/19 D	20/49 D
17/15	17/33 D	18/09	18/33 D	19/09	19/46 D	20/19	20/49 D
17/15	17/33	18/09 D	18/33	19/09 D	19/46	20/19 D	20/49 D
17/15	17/35 D	18/09	18/33 D	19/09	19/46 D	20/19	20/51 D
17/15 D	17/35	18/09 D	18/33	19/12 D	19/46	20/19 D	20/51 D
17/15	17/35 D	18/09	18/33 D	19/12	19/46 D	20/19	20/51 D
17/15 D	17/35	18/09 D	18/33	19/12 D	19/46	20/21 D	20/51 D
17/15	17/37 D	18/09	18/36 D	19/12	19/48 D	20/21	20/51 D
17/17 D	17/37	18/11 D	18/36	19/12 D	19/48	20/21 D	20/51 D
17/17	17/37 D	18/11	18/36 D	19/12	19/48 D	20/21	20/51 D
17/17	17/37	18/11 D	18/36	19/12 D	19/48	20/21 D	20/51 D
17/17	17/37 D	18/11	18/36 D	19/12	19/48 D	20/21	20/51 D
17/17	17/37	18/11 D	18/36	19/14 D	19/48	20/24 D	20/53 D

INITIAL
SYMBOLIC REFERENCE TABLE.

INITYZ	0	PROGRAM*	2/43 E	2/45 L	4/43				
INITYZ1	53	PROGRAM*	4/04	4/45 L					
INITYZ2	41	PROGRAM*	4/19	4/22 L					
INTINIA	0	EXTERNAL*	4/22						
INTINIB	0	EXTERNAL*	4/29						
INTINIC	0	EXTERNAL*	11/12						
IPROCO1	0	EXTERNAL*	23/07						
IPROCO2	0	EXTERNAL*	23/19						
IPROCSZ	0	EXTERNAL*	22/01	26/51					
IPSTART	0	EXTERNAL*	24/34						
IPWDS1	0	EXTERNAL*	23/09	23/15	25/06				
IPWDS2	0	EXTERNAL*	23/21	25/23					
I.BOX	0	EXTERNAL*	3/17 S	3/24 S	3/31 S	3/38 S			
I.LOCK	0	EXTERNAL*	28/08 S	28/12 S					
J.ADDOPT	57		18/19						
J.ADDORD	114		19/07						
J.ANYCAP	54		17/35	17/39	18/03	18/11	18/43	20/19	
J.ARMIT	234		21/07						
J.BLKCAP	56		19/52						
J.BLKDAT	55		19/50						
J.CAGEN	164		20/09						
J.CAPIN	31		17/41						
J.CAPOU	33		17/43						
J.CCCLOA	116		19/09						
J.CGEN	166		20/11						
J.CHKBLK	62		18/18						
J.CHMPRO	202		20/27						
J.CHMPRW	201		20/24						
J.CLRDAE	137		19/22						
J.CLRIB	143		19/31						
J.CLRMG	226		21/25						
J.COPYOP	60		18/16						
J.CPOUT	232		20/53						
J.CPROC	2		17/22	25/28					
J.CPUIN	230		20/51	25/43					
J.CPZRC	210		20/35						
J.CRALBK	122		19/14						
J.CREBLK	6		17/17	22/53					
J.CRECC	15		17/29	26/16					
J.CRECL	0		11/21	17/13					
J.CREFIL	4		17/15	22/21					
J.DCLOX	151		19/44						
J.DELAB	131		19/35						
J.DELBLK	53		18/20						
J.DELCL	112		18/31						
J.DELEC	147		19/42						
J.DELFIL	54		18/22						
J.DELSUB	133		19/27						
J.DISIT	236		21/09						
J.DISMAP	74		18/38						
J.DISPOP	162		20/01						
J.DISPST	104		18/45						
J.DISSEN	106		18/47						

INITIAL
SYMBOLIC REFERENCE TABLE.

J.DLOPR	220	20/46
J.DLPRO	126	19/18
J.DONATE	120	19/12
J.DPROD	135	19/20
J.DSCAP	25	17/35
J.DSCLX	203	20/29
J.DSFMAP	110	18/49
J.DSPAB	152	19/48
J.DSPALC	177	20/21
J.DSPOB	175	20/19
J.DSPSP	170	20/13
J.ESMGEN	42	17/45
J.FSMLOC	44	17/47
J.EVENT	13	17/39
J.FIXCAP	53	18/23
J.FIXDAT	31	18/05
J.FRETUR	40	18/11
J.FSON	204	17/37
J.GETEVF	130	19/33
J.GRAB	222	20/49
J.HANG	14	17/11
J.INCHR	173	20/17
J.INMTR	212	20/43
J.LPRET	76	18/40
J.MAPZRO	70	18/27
J.MGETF	146	19/40
J.MGETH	145	19/38
J.MKRC	11	17/24
J.MKOPER	46	17/30
J.MKSUBP	223	17/27
J.MODPC	124	19/16
J.MOVBLK	73	18/36
J.MOVCP	214	20/38
J.MOVEC	217	18/14
J.MOVKT	216	20/41
J.MPCHRO	71	18/20
J.MPCHRW	72	18/23
J.NEWUN	102	18/43
J.NETMP	17	19/46
J.PINT	100	19/33
J.REDSHP	66	18/24
J.REFILE	10	16/22
J.RETPAR	160	20/05
J.RETURN	37	17/32
J.RREG	22	17/33
J.SETDAE	140	19/25
J.SETIIB	141	19/29
J.SPRET	206	20/32
J.SREG	21	17/31
J.STMSG	224	21/03
J.TIMDT	154	20/07
J.TRDB	172	20/15

17/39

INITIAL
SYMBOLIC REFERENCE TABLE.

J.USRCAP 52

16/33	17/27	18/09	18/33	19/12	19/48	20/27	20/53
17/07	17/27	18/11	18/36	19/14	19/50	20/38	21/03
17/09	17/27	18/13	18/36	19/16	19/52	20/38	21/03
17/11	17/37	18/16	18/38	19/18	20/01	20/41	21/05
17/13	17/41	18/18	18/40	19/20	20/11	20/41	21/07
17/15	17/43	18/20	18/51	19/22	20/13	20/43	21/09
17/17	17/45	18/22	19/03	19/25	20/15	20/46	
17/22	17/50	18/24	19/03	19/25	20/17	20/49	
17/22	17/50	18/27	19/07	19/27	20/24	20/49	
17/22	18/03	18/27	19/07	19/33	20/24	20/49	
17/22	18/05	18/30	19/07	19/35	20/24	20/51	
17/22	18/07	18/30	19/09	19/42	20/27	20/51	
17/24	18/09	18/33	19/12	19/46	20/27	20/53	

J.USRDAT 50

16/44	17/22	17/39	18/11	18/36	19/16	20/01	20/24
16/49	17/22	17/41	18/13	18/38	19/16	20/01	20/24
17/01	17/22	17/41	18/13	18/38	19/20	20/03	20/27
17/07	17/22	17/43	18/16	18/40	19/20	20/03	20/27
17/07	17/22	17/43	18/16	18/43	19/25	20/05	20/27
17/07	17/22	17/45	18/18	18/43	19/25	20/05	20/27
17/09	17/22	17/47	18/20	18/45	19/38	20/09	20/29
17/13	17/24	17/50	18/24	18/45	19/38	20/11	20/35
17/13	17/24	17/50	18/24	18/47	19/40	20/11	20/38
17/15	17/27	17/50	18/27	18/47	19/40	20/13	20/41
17/15	17/27	18/03	18/30	18/49	19/44	20/13	20/43
17/15	17/27	18/05	18/30	18/49	19/46	20/15	20/49
17/17	17/27	18/05	18/30	19/03	19/46	20/17	20/51
17/22	17/29	18/07	18/30	19/07	19/48	20/19	20/53
17/22	17/31	18/07	18/33	19/07	19/48	20/19	21/03
17/22	17/33	18/09	18/33	19/09	19/50	20/21	
17/22	17/37	18/09	18/33	19/09	19/50	20/21	
17/22	17/37	18/09	18/33	19/12	19/52	20/24	
17/22	17/39	18/11	18/36	19/14	19/52	20/24	

J.USRRR 156
J.WRFILE 7
LIMIT 0
MC.INT 0
MC.IPRC 0
MKOPRN 0

EXTERNAL*
EXTERNAL*
EXTERNAL*
EXTERNAL*

20/03	23/11	23/24					
17/07							
11/40							
11/40							
11/43							
16/24	17/33	18/05	18/33	19/12	19/38	20/09	20/38
17/07	17/35	18/07	18/36	19/14	19/40	20/11	20/41
17/09	17/37	18/09	18/38	19/16	19/42	20/13	20/43
17/11	17/39	18/11	18/40	19/18	19/44	20/15	20/46
17/13	17/41	18/13	18/43	19/20	19/46	20/17	20/49
17/15	17/43	18/16	18/45	19/22	19/48	20/19	20/51
17/17	17/45	18/18	18/47	19/25	19/50	20/21	20/53
17/22	17/47	18/20	18/49	19/27	19/52	20/24	21/03
17/24	17/50	18/22	18/51	19/29	20/01	20/27	21/05
17/27	17/52	18/24	19/03	19/31	20/03	20/29	21/07
17/29	18/01	18/27	19/07	19/33	20/05	20/32	21/09
17/31	18/03	18/30	19/09	19/35	20/07	20/35	
24/25	26/48						
24/25	26/49						

NUMAP 4
NUMCHWD 1

INITIAL
SYMBOLIC REFERENCE TABLE.

NUMOP 137

14/09 D	17/31	18/03	18/30	19/09	19/35	20/07	20/35
17/04 D	17/33 D	18/05 D	18/33 D	19/12 D	19/38 D	20/09 D	20/38 D
17/04	17/33	18/05	18/33	19/12	19/38	20/09	20/38
17/07 D	17/35 D	18/07 D	18/36 D	19/14 D	19/40 D	20/11 D	20/41 D
17/07	17/35	18/07	18/36	19/14	19/40	20/11	20/41
17/09 D	17/37 D	18/09 D	18/38 D	19/16 D	19/42 D	20/13 D	20/43 D
17/09	17/37	18/09	18/38	19/16	19/42	20/13	20/43
17/11 D	17/39 D	18/11 D	18/40 D	19/18 D	19/44 D	20/15 D	20/46 D
17/11	17/39	18/11	18/40	19/18	19/44	20/15	20/46
17/13 D	17/41 D	18/13 D	18/43 D	19/20 D	19/46 D	20/17 D	20/49 D
17/13	17/41	18/13	18/43	19/20	19/46	20/17	20/49
17/15 D	17/43 D	18/16 D	18/45 D	19/22 D	19/48 D	20/19 D	20/51 D
17/15	17/43	18/16	18/45	19/22	19/48	20/19	20/51
17/17 D	17/45 D	18/18 D	18/47 D	19/25 D	19/50 D	20/21 D	20/53 D
17/17	17/45	18/18	18/47	19/25	19/50	20/21	20/53
17/22 D	17/47 D	18/20 D	18/49 D	19/27 D	19/52 D	20/24 D	21/03 D
17/22	17/47	18/20	18/49	19/27	19/52	20/24	21/03
17/24 D	17/50 D	18/22 D	18/51 D	19/29 D	20/01 D	20/27 D	21/05 D
17/24	17/50	18/22	18/51	19/29	20/01	20/27	21/05
17/27 D	17/52 D	18/24 D	19/03 D	19/31 D	20/03 D	20/29 D	21/07 D
17/27	17/52	18/24	19/03	19/31	20/03	20/29	21/07
17/29 D	18/01 D	18/27 D	19/07 D	19/33 D	20/05 D	20/32 D	21/09 D
17/29	18/01	18/27	19/07	19/33	20/05	20/32	21/09
17/31 D	18/03 D	18/30 D	19/09 D	19/35 D	20/07 D	20/35 D	21/24
17/31	18/03	18/30	19/09	19/35	20/07	20/35	21/24
17/17	21/23 E	21/24 D					

NUMOPS	137
OB.ADDOR	4
OB.ALORD	400
OB.CALOP	100
OB.CHMAP	400
OB.CHNAM	2
OB.CHOPT	20
OB.CHTYP	10
OB.CPYIN	4
OB.CPYOT	10
OB.CREAB	4
OB.CREBL	4
OB.CRECL	10
OB.CREEC	200
OB.CREER	40
OB.CRFIL	20
OB.DAE	1000
OB.DELBL	10
OB.DSTRY	1
OB.FATHR	4
OB.FDAE	200
OB.GET	2000
OB.GETCP	40000
OB.GETEV	10
OB.GETMT	200000
OB.GIVCP	20000
OB.GIVE	1000
OB.GIVMT	100000
OB.GOD	4000

19/07							
17/30	18/16	19/07					
17/30	19/07						
18/27	18/30	18/33	19/22	20/24	20/27		
18/43							
18/03	18/13						
18/05	18/07	18/09	18/11				
17/43							
17/41							
19/14							
17/17	18/36						
17/13							
17/24							
17/22							
17/15							
19/25							
18/20	18/36						
18/22	18/31	19/18	19/27	19/35	19/42	20/46	
17/27							
19/25							
19/12							
20/38							
17/11							
20/41							
20/38							
19/12							
20/41							
19/09							

P.PARAM 66

3/51 S	17/22 S	17/50 S	18/27 S	19/03 S	19/38 S	20/15 S	20/49 S
3/52 S	17/22 S	17/50 S	18/27 S	19/03 S	19/38 S	20/15 S	20/49 S
4/02 S	17/22 S	17/50 S	18/27 S	19/07 S	19/38 S	20/17 S	20/49 S
4/16 S	17/22 S	17/50 S	18/27 S	19/07 S	19/38 S	20/17 S	20/49 S
4/18 S	17/22 S	17/50 S	18/27 S	19/07 S	19/40 S	20/17 S	20/49 S
4/33 S	17/22 S	17/50 S	18/27 S	19/07 S	19/40 S	20/17 S	20/49 S
11/19 S	17/24 S	17/52 S	18/30 S	19/07 S	19/40 S	20/17 S	20/49 S
12/32 S	17/24 S	18/01 S	18/30 S	19/07 S	19/40 S	20/19 S	20/49 S
13/01 S	17/24 S	18/03 S	18/30 S	19/07 S	19/42 S	20/19 S	20/51 S
13/11 S	17/24 S	18/03 S	18/30 S	19/07 S	19/42 S	20/19 S	20/51 S
13/28 S	17/24 S	18/03 S	18/30 S	19/07 S	19/42 S	20/19 S	20/51 S
13/52 S	17/24 S	18/03 S	18/30 S	19/07 S	19/42 S	20/19 S	20/51 S
16/20 S	17/27 S	18/03 S	18/30 S	19/09 S	19/44 S	20/19 S	20/51 S
16/30 S	17/27 S	18/03 S	18/30 S	19/09 S	19/44 S	20/21 S	20/51 S
16/32 S	17/27 S	18/03 S	18/30 S	19/09 S	19/44 S	20/21 S	20/51 S
16/35 S	17/27 S	18/05 S	18/30 S	19/09 S	19/46 S	20/21 S	20/53 S
16/43 S	17/27 S	18/05 S	18/33 S	19/09 S	19/46 S	20/21 S	20/53 S
16/48 S	17/27 S	18/05 S	18/33 S	19/09 S	19/46 S	20/24 S	20/53 S
16/53 S	17/27 S	18/05 S	18/33 S	19/12 S	19/46 S	20/24 S	20/53 S
17/07 S	17/27 S	18/05 S	18/33 S	19/12 S	19/46 S	20/24 S	20/53 S
17/07 S	17/27 S	18/05 S	18/33 S	19/12 S	19/46 S	20/24 S	20/53 S
17/07 S	17/27 S	18/07 S	18/33 S	19/12 S	19/48 S	20/24 S	21/03 S
17/07 S	17/27 S	18/07 S	18/33 S	19/12 S	19/48 S	20/24 S	21/03 S
17/07 S	17/27 S	18/07 S	18/33 S	19/12 S	19/48 S	20/24 S	21/03 S
17/07 S	17/29 S	18/07 S	18/33 S	19/12 S	19/48 S	20/24 S	21/03 S
17/07 S	17/29 S	18/07 S	18/33 S	19/14 S	19/48 S	20/24 S	21/03 S
17/09 S	17/29 S	18/09 S	18/36 S	19/14 S	19/48 S	20/24 S	21/03 S
17/09 S	17/31 S	18/09 S	18/36 S	19/14 S	19/50 S	20/24 S	21/03 S
17/09 S	17/31 S	18/09 S	18/36 S	19/14 S	19/50 S	20/27 S	21/03 S
17/09 S	17/31 S	18/09 S	18/36 S	19/14 S	19/50 S	20/27 S	21/03 S
17/09 S	17/33 S	18/09 S	18/36 S	19/16 S	19/50 S	20/27 S	21/03 S
17/11 S	17/33 S	18/09 S	18/36 S	19/16 S	19/50 S	20/27 S	21/03 S
17/11 S	17/33 S	18/09 S	18/36 S	19/16 S	19/50 S	20/27 S	21/03 S
17/11 S	17/35 S	18/11 S	18/36 S	19/16 S	19/52 S	20/27 S	21/07 S
17/11 S	17/35 S	18/11 S	18/38 S	19/16 S	19/52 S	20/27 S	21/07 S
17/13 S	17/35 S	18/11 S	18/38 S	19/18 S	19/52 S	20/27 S	21/07 S
17/13 S	17/35 S	18/11 S	18/38 S	19/18 S	19/52 S	20/27 S	21/07 S
17/13 S	17/37 S	18/11 S	18/38 S	19/18 S	19/52 S	20/27 S	21/09 S
17/13 S	17/37 S	18/13 S	18/38 S	19/18 S	20/01 S	20/27 S	21/09 S
17/13 S	17/37 S	18/13 S	18/40 S	19/20 S	20/01 S	20/27 S	21/09 S
17/15 S	17/37 S	18/13 S	18/40 S	19/20 S	20/01 S	20/29 S	21/16 S
17/15 S	17/37 S	18/13 S	18/40 S	19/20 S	20/01 S	20/29 S	22/10 S
17/15 S	17/39 S	18/13 S	18/40 S	19/20 S	20/01 S	20/29 S	22/34 S
17/15 S	17/39 S	18/13 S	18/40 S	19/20 S	20/01 S	20/32 S	22/35 S
17/15 S	17/39 S	18/16 S	18/43 S	19/20 S	20/03 S	20/35 S	22/36 S
17/15 S	17/39 S	18/16 S	18/43 S	19/22 S	20/03 S	20/35 S	22/48 S
17/15 S	17/39 S	18/16 S	18/43 S	19/22 S	20/03 S	20/35 S	22/49 S
17/17 S	17/39 S	18/16 S	18/43 S	19/22 S	20/03 S	20/38 S	22/51 S
17/17 S	17/41 S	18/16 S	18/43 S	19/22 S	20/05 S	20/38 S	23/05 S
17/17 S	17/41 S	18/16 S	18/43 S	19/25 S	20/05 S	20/38 S	23/08 S
17/17 S	17/41 S	18/18 S	18/45 S	19/25 S	20/05 S	20/38 S	23/10 S
17/17 S	17/41 S	18/18 S	18/45 S	19/25 S	20/05 S	20/38 S	23/17 S

I N I T L
SYMBOLIC REFERENCE TABLE.

S.ECSRA	0	EXTERNAL*	3/26							
S.FSWAP	0	EXTERNAL*	3/01 S	3/16 S	3/23 S	3/30 S	3/37 S			
S.IPROC	0	EXTERNAL*	4/35 S							
S.SAVE1	0	EXTERNAL*	28/14 S							
S.SAVE2	0	EXTERNAL*	28/17 S							
S.START	3571	PROGRAM*	28/04 E	28/06 L						
S.SYSAB	0	EXTERNAL*	3/47							
T.ALLOC	1767		17/13	17/24	19/07	19/12	19/48	20/38	20/43	20/49
			17/15	17/50	19/09	19/14	20/17	20/41	20/49	20/51
			17/22	18/16	19/12	19/35	20/38	20/41	20/49	20/53
T.CAUTH	1773		20/11							
T.CLIST	1377		17/22	17/27	17/41	17/43	18/51			
T.CLSCD	1737		17/22	17/37	18/27	18/38	19/07	19/25	20/13	21/07
			17/27	17/45	18/30	18/40	19/16	19/27	20/24	21/09
			17/27	17/50	18/33	19/03	19/22	19/46	20/27	
T.EVCH	1757		17/09	17/11	19/33	19/42	21/03			
T.FILE	1577		16/34	17/22	18/20	18/27	18/36	20/15	20/27	
			17/07	17/22	18/22	18/30	18/36	20/24	20/27	
			17/17	18/18	18/24	18/33	19/25	20/24		
T.OPER	1677		18/03	18/07	18/11	19/07	19/52	20/46		
			18/05	18/09	18/13	19/50	20/01			
T.PROC	777		19/03	19/18	19/20	20/51	20/53	21/03	21/05	