

INITIALIZES BEAD DIRECTORY
STORAGE ALLOCATION.

COMPASS - VER 2.

01/31/71 19.30.33.

PAGE 1

ADDRESS LENGTH

0 0
0

BINARY CONTROL CARDS.

IDENT BEAD1
END

INITIALIZES BEAD DIRECTORY

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PAGE 2

INENT READI

		* * * *		OOPNAMES HERE			
		* * * *		LIST	X		
0				OPNAMES	XTEXT		
0				C.SELF	EQU	0	CAPABILITY FOR THIS C LIST
1				C.ALLOC	EQU	1	ALLOCATION BLOCK C LIST INDEX
2				C.INTFIL	EQU	2	
3				C.RFILE	EQU	2+1	READ ON FILE
4				C.WFILE	EQU	3+1	WRITE ON FILE
5				C.SENDE	EQU	4+1	SEND EVENT
6				C.GETE	EQU	5+1	GET EVENT OR HANG
7				C.CCLIST	EQU	6+1	CREATE C LIST OPERATION
10				C.CFILE	EQU	7+1	CREATE FILE
11				C.CBLK	EQU	8+1	CREATE FILE BLOCK
12				C.CPROC	EQU	9+1	CREATE PROCESS
13				C.CEVCH	EQU	10+1	CREATE EVENT CHANNEL
14				C.CSPROC	EQU	11+1	CREATE SUB PROCESS
15				C.CCC	EQU	12+1	CREATE CLASS CODE
16				C.SAVE	EQU	13+1	SAVE REGISTERS
17				C.RESTOR	EQU	14+1	RESTORE REGISTERS
20				C.DSCAP	EQU	16	.. DISPLAY A CAPABILITY
20				C.DSPCAP	EQU	C.DSCAP	.. OLD NAME FOR C.DSCAP
21				C.FSON	EQU	16+1	
22				C.MOVEC	EQU	18	.. MOVE A CAPABILITY WITHIN FULL CLIST
22				C.MVECAP	EQU	C.MOVEC	.. OLD NAME FOR C.MOVEC
23				C.CAPIN	EQU	18+1	
24				C.CAPOU	EQU	20	.. COPY A CAPABILITY OUT OF FULL CLIST
24				C.CAPOUT	EQU	C.CAPOU	.. OLD NAME FOR C.CAPOU
25				C.ESMGEN	EQU	21	SET ANY ESM IN PROCESS
26				C.ESMLOC	EQU	22	SET LOCAL ESM
27				C.MKOPR	EQU	23	CREATE OPERATION(SUBP CALL)
30				C.RETURN	EQU	24	SUBPROCESS RETURN
31				C.FRETUR	EQU	25	F-RETURN
32				C.FIXC	EQU	26	FIX CAPABILITY PS
33				C.FIXD	EQU	27	FIX DATUM PS
34				C.UDAT	EQU	28	CHANGE ANY PS TO USER DATUM
35				C.UCAP	EQU	29	CHANGE ANY PS TO USER CAPABILITY
36				C.ACAP	EQU	30	CHANGE ANY PS TO ANY CAPABILITY
37				C.ADDOPT	EQU	31	ADD OPTION BITS TO PS
40				C.COPYOP	EQU	32	• MAKE A COPY OF AN OPERATION
41				C.CHKBLK	EQU	33	• CHECK FOR MISSING FILE BLOCKS
42				C.DELBLK	EQU	34	• DELETE A FILE BLOCK
43				C.DELFIL	EQU	35	• DELETE A FILE
44				C.REDSHP	EQU	36	• GET SHAPE NUMBERS OF A FILE
45				C.MAPZRO	EQU	37	• ZERO A MAP ENTRY
46				C.MPCHRO	EQU	38	• CHANGE A ZERO MAP ENTRY TO READ ONLY
47				C.MPCHRW	EQU	39	• CHANGE A ZERO MAP ENTRY TO RW
50				C.MOVBLK	EQU	40	• MOVE A FILE BLOCK
51				C.DISMAP	EQU	41	
52				C.JUMP	EQU	42	

53	C.NEWUN	EQU	43	.CHANGE UNIQUE NAME	OPNAMES	1
54	C.DISPST	EQU	44	.DISPLAY ENTIRE STACK	OPNAMES	1
55	C.DISSEN	EQU	45	.DISPLAY STACK ENTRY	OPNAMES	1
56	C.DSFMAP	EQU	46	DISPLAY FULL MAP ENTRY	OPNAMES	1
57	C.DELCL	EQU	47	DELETE C-LIST	OPNAMES	1
60	C.PINT	EQU	48	SEND PROCESS INTERRUPT	OPNAMES	1
61	C.ADDORD	EQU	49	.ADD AN ORDER TO AN OPERATION	OPNAMES	1
62	C.CCCLOA	EQU	50	CREATE COMPLETE CAPABILITY	OPNAMES	1
63	C.DONATE	EQU	51	TRANSFER BETWEEN ALLOC BKS	OPNAMES	1
64	C.CRALBK	EQU	52	.CREATE ALLOC BLOCK	OPNAMES	1
65	C.MODPC	EQU	53	.MODIFY P-COUNTER	OPNAMES	1
66	C.DLPROC	EQU	54	.DESTROY A PROCESS	OPNAMES	1
67	C.CHNGWD	EQU	55		OPNAMES	1
70	C.CLRDAE	EQU	56	.CLEAR THE DIRECT ACCESS ECS ENTRY	OPNAMES	1
71	C.SETDAE	EQU	57	.SET THE DIRECT ACCESS ECS ENTRY	OPNAMES	1
72	C.DELSUB	EQU	58	DELETE SUP PROC	OPNAMES	1
73	C.SETIIB	EQU	55+4	.SET INTERRUPT INHIBIT BIT	OPNAMES	1
74	C.CLRIB	EQU	56+4	.CLEAR INTERRUPT-INHIBIT BIT	OPNAMES	1
75	C.GETEVF	EQU	57+4	.GET EVENT OR FRETURN	OPNAMES	1
76	C.DELAB	EQU	62	.DESTROY ALLOCATION BLOCK	OPNAMES	1
77	C.MGETH	EQU	63	GET EVENT FROM MULTIPLE CHANNELS OR	HOPNAMES	1
					OPNAMES	1
100	C.MGETF	EQU	64	GET EVENT FROM MULTIPLE CHANNELS OR	FOPNAMES	1
					OPNAMES	1
101	C.DESECH	EQU	65	DESTROY EVENT CHANNEL	OPNAMES	1
102	C.DSPCLX	EQU	66	DISPLAY CLOCKS IN USER CORE	OPNAMES	1
3	C.READ	EQU	C.RFILE		OPNAMES	1
4	C.WRITE	EQU	C.WFILE		OPNAMES	1
6	C.HANG	EQU	C.GETE		OPNAMES	1
41	C.PROBE	EQU	C.CHRBLK		OPNAMES	1
103	C.NWTMP	EQU	67	SET TEMPORARY PART OF CLASS CODE	OPNAMES	1
104	C.DSPAB	EQU	68	DISPLAY ALLOCATION BLOCK	OPNAMES	1
105	C.BDAT	EQU	69	.CHANGE ANY TO BLOCK DATA PARAMETER	OPNAMES	1
106	C.BLKCAP	EQU	70	.CHANGE ANY TO BLOCK CAPABILITY PARAM	OPNAMES	1
107	C.DISPOP	EQU	71	.DISPLAY OPERATION	OPNAMES	1
110	C.USRER	EQU	72	.USER INITIATED ERROR	OPNAMES	1
111	C.RETPAR	EQU	73	.RETURN WITH PARAMETERS	OPNAMES	1
112	C.TIMDT	EQU	74	.RETURN DATE AND TIME	OPNAMES	1
113	C.CAGEN	EQU	75	.MAKE CAPABILITY CREATING AUTHORIZATION	OPNAMES	1
114	C.CGEN	EQU	76	.MAKE CAPABILITY OF AUTHORIZED TYPE	OPNAMES	1
115	C.DSPSP	EQU	77	.DISPLAY SUBPROCESS DESCRIPTOR	OPNAMES	1
116	C.TRDB	EQU	78	.TEST AND RESET DIRTY BIT	OPNAMES	1
117	C.INCHR	EQU	79	.INCREMENT AB CHARGE RATE	OPNAMES	1
120	C.DSPOB	EQU	80	.DISPLAY OBJECT	OPNAMES	1
121	C.DSPALC	EQU	81	.DISPLAY ALLOCATOR CONSTANTS	OPNAMES	1
122	C.CHMPRW	EQU	82	.CHANGE A READ-WRITE MAP ENTRY	OPNAMES	1
123	C.CHMPRO	EQU	83	.CHANGE A READ ONLY MAP ENTRY	OPNAMES	1
47	C.MKMPRW	EQU	C.MPCHRW	.MORE REASONABLE NAME FOR C.MPCHRW	OPNAMES	1
46	C.MKMPRO	EQU	C.MPCHRO	.MORE REASONABLE NAME FOR C.MPCHRO	OPNAMES	1
124	C.DSCLX	EQU	84	.DISPLAY SYSTEM CLOCKS IN USER CORE	OPNAMES	1
125	C.SPRET	EQU	85	..SPECIAL RETURN (DECREMENT P-COUNTER)	OPNAMES	1
126	C.CPZRO	EQU	86	..ZERO A CAPABILITY	OPNAMES	1
127	C.MOVCP	EQU	87	.TRANSFER CP TIME BETWEEN ABS	OPNAMES	1

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XTEXT STUFF

130	C.MOVMT	EQU	88
131	C.INMTR	EQU	89
132	C.DLOPR	EQU	90

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• TRANSFER MOT SLOTS BETWEEN ABS	OPNAMES	1
• INCREMENT AB CHARGE METER	OPNAMES	1
• DESTROY AN OPERATION	OPNAMES	1

```
*
*
*
XJ      MACRO      LOC
+      VFD         12/0130B,18/LOC,30/1
      SR7          ++1
      JP           ERR
      ENDM

*
*
XJR      MACRO      LOC,RTNAUTH
+      VFD         12/0130B,18/LOC,12/1,18/2
      VFD         60/RTNAUTH
      SR7          ++1
      JP           ERR
      ENDM

*
*
CALL     MACRO      LOC
+      SR7          ++1
      JP           LOC
      ENDM

*
*
MCAP     MACRO      NAME
      BSS          0
M.NAME   EQU        -*
      VFD         1/1,29/C.NAME,30/CX.MAST
      ENDM

*
*
MXCAP    MACRO      NAME
+      VFD         1/1,29/C.NAME,30/CX.MAST
      ENDM

*
*
ITEMS    MACRO      A,B,C,D,E,F,G,H
      VFD         60/A
      IFC         NE,$$B$
      VFD         60/B
      IFC         NE,$$C$
      VFD         60/C
      IFC         NE,$$D$
      VFD         60/D
      IFC         NE,$$E$
      VFD         60/E
      IFC         NE,$$F$
      VFD         60/F
      IFC         NE,$$G$
      VFD         60/G
      IFC         NE,$$H$
      VFD         60/H
      ENDIF
```

```

*
*
*
MAP      MACRO      NAME,X,FLAD,CMAD,LASTP1,RO
*          VFD        60/OL,NAME
          VFD        30/X,30/FLAD
          VFD        1/RO,29/CMAD,30/LASTP1
          ENDM

*
*
*
RTNCAP   MACRO      NAME
          DATA      0
          RMT
          DATA      OL,NAME
          RMT
          ENDM

*
*
*
PARCAP   MACRO      NAME
          DATA      OL,NAME
          ENDM

```

MACRO FOR CLIST INDEX OF OBJECT TO RETURN TO CALLER

MACRO FOR CLIST INDEX OF OBJECT TO BE OBTAINED
AT TIME OF THIS SUBPROCESS CONSTRUCTION

```

*
*
*
*
*
XSETXJ      MACRO      A,B,C,D,E
LOCALPXJ    SET        0
              IFC       NE,$$A$
              SX1       A
LOCALPXJ    SET        1
              IFC       NE,$$B$
              SX2       B
LOCALPXJ    SET        2
              IFC       NE,$$C$
              SX3       C
LOCALPXJ    SET        3
              IFC       NE,$$D$
              SX4       D
LOCALPXJ    SET        4
              IFC       NE,$$E$
              SX5       E
LOCALPXJ    SET        5
              ENDM

*
*
*
*
*
YSETXJ      MACRO      A,B,C,D,E,F,G,H,I,J
XSETXJ      A,B,C,D,E
SB2         5
CALL        SET
XSETXJ      F,G,H,I,J
ENDIF
SB2         LOCALPXJ
CALL        SET
ENDM

*
*
*
*
*
DOXJ        MACRO      A,B,C,D,E,F,G,H,I,J
SB1         XJLOC
YSETXJ      A,B,C,D,E,F,G,H,I,J
XJ          XJLOC
ENDM

*
*
*
*
*
MULTI LINE VERSIONS

INITIAL SET UP LINE

SETXJ       MACRO      A,B,C,D,E,F,G,H,I,J
SB1         XJLOC
YSETXJ      A,B,C,D,E,F,G,H,I,J

```



```

ENDM
*
*
*
XDOXJ    MACRO    A,B,C,D,E,F,G,H,I,J
          YSETXJ   A,B,C,D,E,F,G,H,I,J
          XJ       XJLOC
          ENDM

*
*
*
SAVE7    MACRO    L
          Sx6      B7
          Sa6      L
          ENDM

*
*
*
GET7     MACRO    L
          Sa1      L
          Sr7      X1
          ENDM

```

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LOW CORE

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L 23 77777777777777777777

DATA -0

*

50

LOC *0

Address	Value	Symbol	Size	Comment
50		PUTENT7	BSSZ	B7 SAVE LOCATIONS
51		CAP7	BSSZ	
52		BLDDIR7	BSSZ	
53		XJLOC	BSSZ	MOST XJ S DONE HERE
72		FILEX1	BSSZ	DATA FOR FILE MOVER ROUTINE
73		BLKSZ	BSSZ	
74		FILEPNT	BSSZ	
	5	SHPCNT	EQU	
75		SHPBUF	BSSZ	SHPCNT+1
103		BASICENT	BSSZ	DATA FOR ENTRY MAKER
107		DIRCLX	BSSZ	
110		DIRFLX	BSSZ	
111		REGAREA	BSSZ	DURING CRASH, REGS SAVED HERE
131		RTNDATA	BSS	RETURN DATA ETC
134	0000000000000000000000	HERE DATA		END MARKER
135	4000000011100000000007	SRETURN	MYCAP	RETPAR
136	0000000000400000000131		VFD	30/CLSTSZ-RTNBASE+1,30/RTNDATA
137	0000000000300000000020		VFD	30/CLSTSZ-RTNBASE,30/RTNBASE
140		SPCINFO	BSSZ	DATA AREA FOR DISPLAY ALLOC BLK
				SIZE TO BE ON THE SAFE SIDE

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END OF SCRATHC AREA

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	*		
	*		
	*		END OF SCRATCH AREA
	*		
152	SCRSZ	BSS	0
	*		
	*		MISC REFERENCES TO MASTER CLIST
	*		
152		MCAP	CAPIN
153		MCAP	CAPOUT
154		MCAP	CCC
155		MCAP	CCLIST
156		MCAP	CEVCH
157		MCAP	CHKBLK
160		MCAP	CRALBK
161		MCAP	MKOPR
162		MCAP	REDSHP
163		MCAP	WRITE
164		MCAP	CFILE
165		MCAP	CBLK
166		MCAP	SENDE
167		MCAP	DSPAB
170		MCAP	FIXD
171		MCAP	UDAT

CX-BEAD

		PLACES AN ENTRY FROM LOCAL CLIST
		NO FRILLS
LCL	MACRO CAP ENDM	FNAME,UNAME,T,CX FNAME,UNAME,T,LCL,CX
		MAKES NULL ENTRY
NULL	MACRO CAP ENDM	FNAME FNAME,OPERATE,B0,NULL
		CREATES CLIST
CLIST	MACRO CAP ENDM	FNAME,UNAME,SIZE FNAME,UNAME,1,CLIST,SIZE
		SET UP TTY ENTRY WITH ALLOCATION BLOCK
TTY	MACRO CAP ENDM	EMPTY,USER,8,TTY
		MOVES A CAPABILITY FROM MASTER CLIST
OPER	MACRO CAP ENDM	NAME NAME,OPERATE,7,OPER,C.NAME
		CONSTRUCTS AN EVENT CHANNEL
EVCH	MACRO CAP ENDM	FNAME,UNAME,SIZE,EVNT FNAME,UNAME,3,EVCH,SIZE,EVNT
		PLACES FILE IN DIRECTORY
		LOCAL CLIST INDEX IS PARAMETER
FILE	MACRO CAP ENDM	FNAME,UNAME,CX FNAME,UNAME,B0,FILE,CX
		PLACES CLASS CODE IN DIRECTORY

INITIALIZES BEAD DIRECTORY
MACROS FOR DIRECTORY SPECIFICATION

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```
*
*
* CLASS      MACRO      LOCAL CLIST INDEX TO HOLD CLASS CODE IS PARAM
*             CAP        FNAME,UNAME,CX
*             ENDM       FNAME,UNAME,5,CLASS,CX
*
*
*             PLACES CAALL IN DIRECTORY
*
*             CLIST INDEX OF CALSS CODE IS PARAM1
*             CLIST INDEX FOR CALL IS PARAM2
*
* MCALL      MACRO      FNAME,UNAME,CX,CY
*             CAP        FNAME,UNAME,6,MCALL,CX,CY
*             ENDM
```



```

*
*
*
*
CAP      MACRO      FNAME,UNAME,TYP,ACTION,A,B
          FILENM     FNAME
          USERNM     UNAME
          TYPE       TYP
          CALL       SETENT
          IFC        NE,$$AS
          SX1        A
          IFC        NE,$$BS
          SX2        B
          ENDIF
          CALL       ACTION
          ENDM

```

```

*
*
*
*
FILENM    MACRO      NAME
          LOCAL      XNAME
          RMT
          DATA      OLNAME
          RMT
          SA1        XNAME
          ENDM

```

```

*
*
*
*
*
TYPE      MACRO      T
          IFC        NE,$$TS
          SX2        T
          ENDIF
          IFC        EQ,$$TS
          SX2        B0
          ENDIF
          ENDM

```

```

*
*
*
*
*
USERNM    MACRO      NAME
          LOCAL      XNAME
          IFC        NE,$$NAMES
          RMT
          DATA      OLNAME
          RMT
          SA3        XNAME
          ENDIF
          XNAME

```

INITIALIZES BEAD DIRECTORY
MACROS FOR DIRECTORY SPECIFICATION

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IFC
SA3
ENDIF
ENDM

EQ,\$\$NAMES
BASICENT+1

Line	Address	Operation	Source	Destination	Description
213	63210	LCL	SR2 JP	X1 PUTENT	MOVES AN ENTRY FROM LOCAL CLIST
214	76670	NULL	SAVE7	CAP7	
215	6110000053		DOXJ	M.DSPAB,CX.ALLOC,SPCINFO	
223	5110000140		SA1	SPCINFO	
	43036		MX0	30	THIS CODE COPIED FROM KARLS BEAD
	15010		Bx0	-X0*X1	
224	21136		AX1	30	
	37610		IX6	X1-X0	(SHOULD BE UNUSED SPACE 2)
	7170040000		SX7	40000B	(SAND BAG 40K)
225	37667		IX6	X6-X7	
	5160000106		SA6	BASICENT+3	
226	6120000013		SR2	CX.NULL	
227	6170000230		CALL	PUTENT	
230	5110000051		GET7	CAP7	
231	0270000000		JP	B7	
232	76670	CLIST	SAVE7	CAP7	ENTERS CLIST OF SPECIFIED SIZE
	73410		SX4	X1	
233	6110000053		DOXJ	M.CCLIST,CX.ALLOC,CX.TEMP,X4	
241	6120000014		SR2	CX.TEMP	
242	6170000243		CALL	PUTENT	
243	5110000051		GET7	CAP7	
244	0270000000		JP	B7	
245	76670	TTY	SAVE7	CAP7	MAKES UP A TTY ENTRY
246	6110000053		DOXJ	M.CRALBK,CX.ALLOC,CX.TEMP	
254	6120000014		SR2	CX.TEMP	
255	6170000256		CALL	PUTENT	
256	5110000051		GET7	CAP7	
257	0270000000		JP	B7	
260	76670	OPER	SAVE7	CAP7	MOVES A CAPABILITY FROM MASTER CLIST
	73310		SX3	X1	

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CODE FOR MAKING ENTRIES IN BEAD DIRECTORY

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261	6110000053		DOXJ	M.CAPIN,CX.MAST,X3,CX.TEMP
267	6120000014		SR2	CX.TEMP
270	6170000271		CALL	PUTENT
271	5110000051		GET7	CAP7
272	0270000000		JP	B7
* *				
273	76670	EVCH	SAVE7	ENTERS AN EVENT CHANNEL
		73410	CAP7	
274	73520		Sx4	X1
	6110000053		Sx5	X2
303	6110000053		DOXJ	M.CEVCH,CX.ALLOC,CX.TEMP,X4
311	6120000014		DOXJ	M.SENDE,CX.TEMP,X5
312	6170000313		SR2	CX.TEMP
313	5110000051		CALL	PUTENT
314	0270000000		GET7	CAP7
			JP	B7

```

*
*
*
*
*
*
315 76670
316 5160000072
73610
FILE SAVE7 CAP7
SY6 X1
SA6 FILEX1

*
*
*
*
*
*
325 5110000075
6110000053
63110
54111
326 73610
5160000073
76600
327 5160000074
DOXJ M.REDSHP,-FILEX1,SHPBUF,SHPCNT
SA1 SHPBUF
SR1 X1
SA1 A1+B1 PICK UP BLOCK SIZE
SY6 X1
SA6 BLKSZ
SY6 B0
SA6 FILEPNT

*
*
*
*
*
*
330 6110000053
336 0316000341
5110000074
337 5120000073
36612
340 5160000074
0200000330
FILE1 DOXJ M.CHBKBLK,-FILEX1,-FILEPNT
N7 X6,FILE2 ( FOUND 1ST MISSING BLK )
SA1 FILEPNT
SA2 BLKSZ
IX6 X1+X2
SA6 FILEPNT
JP FILE1

*
*
*
*
*
*
341 5110000073
5120000074
342 43036
15110
15220
20136
343 12612
5160000106
FILE2 SA1 BLKSZ
SA2 FILEPNT
MX0 60-30
BX1 -X0*X1
BX2 -X0*X2
LX1 30
BX6 X1+X2
SA6 BASICENT+3

*
*
*
*
*
*
344 5110000072
63210
345 6170000346
CALL FILEX1
X1
PUTENT

*
*
*
*
*
*
346 5110000051
347 0270000000
GET7 CAP7
JP B7

```

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CODE FOR MAKING ENTRIES IN BEAD DIRECTORY

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```

*
*
*
350 76670          73210 CLASS SAVE7 CAP7
351 6110000053    Sx2      X1
356 63220          DOXJ    M.CCC,X2
357 6170000360    SR2      X2
360 5110000051    CALL    PUTENT
361 0270000000    GET7     CAP7
                        JP      B7

```

```

*
*
*
362 76670          73510 MCALL SAVE7 CAP7
363 73320          Sx5      X1
        6110000053    Sx3      X2
374 63230          DOXJ    M.MKOPR,CX.ALLOC,X3,B0,X5,B0
375 6170000376    SR2      X3
376 5110000051    CALL    PUTENT
377 0270000000    GET7     CAP7
                        JP      B7

```

ENTERS A CLASS CODE

ENTERS AN OPERATION

X1	FILE	NAME
X2	TYPE	
X3	USER	NAME

SR1	BASICENT
MX0	60-18
Bx1	X0*X1
Bx2	-X0*X2
MX0	60-12
Bx3	X0*X3
SA4	DIRCLX
Bx4	-X0*X4
Bx6	X1+X2
SA6	B1
Bx6	X3+X4
SA6	B1+1
Sx6	B0
SA6	B1+2
SA6	B1+3
CP	B7

CLIST INDEX OF OBJECT IN B2

```
SAVE7 PUTENT7
DOXJ M.CAPOUT,CX.DCL,--DIRCLX,B2
SX6 X3+1
SAG DIRCLX
DOXJ M.WRITE,CX.DFL,--DIRFLX,BASICENT,4
SX6 X3+4
SAG DIRFLX
GET7 PUTENT7
JP B7
```

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ACTUAL CALLS TO MAKE UP DIRECTORY

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```

*
*
*
400 DIRSIZE EQU 400B NO. ENTRIES ALLOWED IN DIRECTORY
400 DIRBLKSZ EQU 400B DIRECTORY FILE BLOCK SIZE
*
*
432 76670 BLDDIR SAVE7 BLDDIR7
*
*
*
CREATE DIRECTORY OBJECTS
I. E. CLIST AND FILE AND EVENT CHANNEL
*
433 6110000053 DOXJ M.CEVCH,CX.ALLOC,CX.DEC,1
441 6110000053 DOXJ M.SENDE,CX.DEC,1
447 6110000053 DOXJ M.CCLIST,CX.ALLOC,CX.DCL,DIRSIZE
455 6110000053 DOXJ M.CFILE,CX.ALLOC,CX.DFL,2,XJLOC+5,100B,DIRBLKSZ
467 76600 SX6 80
5160000074 SA6 FILEPNT
470 7160000400 SX6 DIRBLKSZ
5160000073 SA6 BLKSZ
*
*
*
CREATE NECESSARY BLOCKS IN DIRECTORY FILE
*
471 6110000053 BLDDIR1 DOXJ M.CBLK,CX.DFL,-FILEPNT
477 5110000074 SA1 FILEPNT
5120000073 SA2 BLKSZ
500 36612 IX6 X1+X2
5160000074 SA6 FILEPNT
501 7110002000 SX1 DIRSIZE*4
37161 IX1 X6-X1
502 0331000471 NG X1,BLDDIR1
*
*
*
NOW INITIALIZE DIRECTORY
*
000040 DUP 32
TTY
ENDD
*
702 5110002043 LCL MASTC,OPERATE,1,CX.DCL
707 5110002045 FILE MASTR,OPERATE,CX.DFL
714 5110002047 LCL NONE,OPERATE,CX.NULL
720 5110002051 EVCH PRNLOCK,OPERATE,1,1
725 5110002053 EVCH DSKLOCK,OPERATE,1,1
732 5110002055 EVCH SYSLOCK,OPERATE,1,1
737 5110002057 FILE DISK,S,CX.DISKF
744 5110002061 LCL BEADCC,OPERATE,5,CX.BDCC
751 5110002063 LCL CALLBD,OPERATE,6,CX.BDCAL
756 5110002065 CLASS SCOPE2,CLASS,CX.SCP2
763 5110002067 CLASS SCOPE,CLASS,CX.SCP

```


INITIALIZES BEAD DIRECTORY
ACTUAL CALLS TO MAKE UP DIRECTORY

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PAGE 25

770 5110002071
775 5110002073
1002 5110002075
1007 5110002077
1014 5110002101
1021 5110002103
1026 5110002105
1033 5110002107
1040 5110002111
1045 5110002113
1052 5110002115
1057 5110002117
1064 5110002121
1071 5110002123
1076 5110002125
1103 5110002127
1110 5110002131
1115 5110002133
1122 5110002135
1127 5110002137
1134 5110002141
1141 5110002143
1146 5110002145
1153 5110002147
1160 5110002151
1165 5110002153
1172 5110002155
1177 5110002157
1204 5110002161
1211 5110002163
1216 5110002165
1223 5110002167
1230 5110002171
1235 5110002173
1242 5110002175
1247 5110002177
1254 5110002201
1261 5110002203
1266 5110002205
1273 5110002207
1300 5110002211
1305 5110002213
1312 5110002215
1317 5110002217
1324 5110002221
1331 5110002223
1336 5110002225
1343 5110002227
1350 5110002231
1355 5110002233
1362 5110002235
1367 5110002237
1374 5110002241

EVCH SECHN, OPERATE, 2, 2RAA
MCALL CALL SC, OPERATE, CX, SCP2, CX, TEMP
CLIST MAINCL, OPERATE, 200
FILE ERROR, OPERATE, CX, ERRF
CLASS ERRORC, OPERATE, CX, ERRC
MCALL CERROR, OPERATE, CX, ERRC, CX, TEMP
OPER SELF
OPER ALLOC
OPER READ
OPER WRITE
OPER SENDE
OPER HANG
OPER CCLIST
OPER CFILE
OPER CBLK
OPER CPROC
OPER CEVCH
OPER CSPROC
OPER CCC
OPER SAVE
OPER RESTOR
OPER DSPCAP
OPER FSON
OPER MVECAP
OPER CAPIN
OPER CAPOUT
OPER ESMGEN
OPER ESMLOC
OPER MKOPR
OPER RETURN
OPER FRETUR
OPER FIXC
OPER FIXD
OPER UDAT
OPER UCAP
OPER ACAP
OPER ADDOPT
OPER COPYOP
OPER CHKBLK
OPER DELBLK
OPER DELFIL
OPER REDSHR
OPER MAPZRO
OPER MPCHRO
OPER MPCHRW
OPER MOVBLK
OPER DISMAP
OPER JUMP
OPER NEWUN
OPER DISPST
OPER DISSEN
OPER DSFMAP
OPER DELCLI

INITIALIZES BEAD DIRECTORY
ACTUAL CALLS TO MAKE UP DIRECTORY

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PAGE 26

1401 5110002243
1406 5110002245
1413 5110002247
1420 5110002251
1425 5110002253
1432 5110002255
1437 5110002257
1444 5110002261
1451 5110002263
1456 5110002265
1463 5110002267
1470 5110002271
1475 5110002273
1502 5110002275
1507 5110002277
1514 5110002301
1521 5110002303
1526 5110002305
1533 5110002307
1540 5110002311
1545 5110002313
1552 5110002315
1557 5110002317
1564 5110002321
1571 5110002323
1576 5110002325
1603 5110002327
1610 5110002331
1615 5110002333
1622 5110002335
1626 5110002337
1633 5110002341
1640 5110002343
1645 5110002345
1652 5110002347
1657 5110002351
1664 5110002353

OPER PINT
OPER ADDORD
OPER CCCLOA
OPER DONATE
OPER CRALBK
OPER MODPC
OPER DLPROC
OPER DELSUB
OPER SETIIB
OPER CLRIIB
OPER GETEVF
OPER DELAB
OPER MGETH
OPER MGETF
OPER DESECH
OPER DSPCLX
OPER PROBE
OPER NWTMP
OPER DSPAB
OPER BDAT
OPER BLKCAP
OPER DISPOP
OPER USRER
OPER RETPAR
OPER TIMDT
OPER CAGEN
OPER CGEN
OPER DSPSP
OPER TRDB
LCL NONE, OPERATE, CX, NULL
OPER DSPOB
OPER DSPALC
OPER CHMPRW
OPER CHMPRO
OPER MKMPRW
OPER MKMPRO
OPER DSCLX

1671 5110002355

NULL NULL

1675 5110002357
1702 5110002361
1707 5110002363

LCL OPERCL, OPERATE, 1, CX, OPERS
LCL LINEASC, OPERATE, 6, CX, LINE
FILE EDITOR, S, CX, EDIT

1714 5110000052
1715 0270000000

GET7 BLDDIR7
JP B7

1716 43074 SET

66570
10611

1717 6170001720
1720 10622
1721 6170001722
1722 10266

10633
1723 6170001724
1724 10366

10644
1725 6170001726
1726 10466

10655
1727 6170001730
1730 10566

1731 66750
0270000000

1732 0602001731
0326001734

1733 13660
53160
10611

1734 56610
6111000001

1735 612277776
0270000000

1736 013000174100000000001
1740 0200001740

1741 400000001600000000007
1742 00000000000000000111

SET

SETB

SETA

SETAI

ERR

SAVE

Mx0

SR5

Bx6

CALL

Bx6

CALL

Bx2

Bx6

CALL

Bx3

Bx6

CALL

Bx4

Bx6

CALL

Bx5

SR7

JP

GE

PL

Bx6

SA1

Bx6

SA6

SR1

SR2

JP

XJ

JP

MxCAP

ITEMS

THIS SUBROUTINE XFERS B2 ITEMS

(OR 5, WHICH EVER IS LESS)

FROM X1, X2, . . . X5 TO B1, B1+1, . . . B1+4

IF XN IS POSITIVE, CONTENTS OF XN IS XFERED

IF XN IS NEGATIVE, CONTENTS OF CELL ADDRESS -XN

X1 WILL BE DESTROYED

B1 IS ADVANCED AND B2 DECREMENTED BY 1 FOR EACH XFER

60

B7

X1

SETA

X2

SETA

X6

X3

SETA

X6

X4

SETA

X6

X5

SETA

X6

B5

B7

B0, B2, SETB

X6, SETA1

X6-X0

X6

X1

B1

B1+1

B2-1

B7

CRAASH

SAVE

*

SAVE

REGAREA

INITIALIZES BEAD DIRECTORY
FINAL STUFF

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2365 0000000000000000000001
2366 0000000000000000000001

*
*
* HERE
*
*
* DATA 1
* FL DATA 1
*
*
* END

0

37745

STORAGE USED
6600 ASSEMBLY

3905 STATEMENTS
20.014 SECONDS

456 SYMBOLS
922 REFERENCES

000274 INVENTED SYMBOLS

INITIALIZES BEAD DIRECTORY
SYMBOLIC REFERENCE TABLE.

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BASICENT	103	12/26 L	19/23 S	21/39 S	23/08	23/34			
BEAD	212	14/25 L							
BLDDIR	432	14/14	24/09 L						
BLDDIR1	471	24/27 L	24/34						
BLDDIR7	52	12/07 L	24/10 S	26/48					
BLKSZ	73	12/17 L	21/20 S	21/27	21/32	24/22 S	24/29		
CAP7	51	12/06 L	19/33 S	19/46	20/09 S	21/47	22/16 S		
		19/15 S	19/37	19/53 S	20/15	22/05 S	22/21		
		19/26	19/43 S	20/04	21/09 S	22/09			
CLASS	350	22/04 L	24/53	25/01	25/06				
CLIST	232	19/32 L	25/04						
CLSTSZ	23	10/19	10/52 L	12/45	12/46				
CX.ALLOC	0	10/29 L	19/35	20/12	24/16	24/19			
		19/16	19/44	22/19	24/18				
CX.BDCAL	4	10/33 L	24/52						
CX.BDCC	3	10/32 L	24/51						
CX.BDIF	2	10/31 L	14/21						
CX.BEAD	10	10/37 L	14/25						
CX.DCL	20	10/48 L	23/31	24/18	24/44				
CX.DEC	22	10/50 L	24/16	24/17					
CX.DFL	21	10/49 L	23/34	24/19	24/28	24/45			
CX.DISKF	5	10/34 L	24/50						
CX.EDIT	12	10/39 L	26/46						
CX.ERRC	17	10/44 L	25/06	25/07					
CX.ERRF	6	10/35 L	25/05						
CX.LINE	11	10/38 L	26/45						
CX.MAST	7	10/36 L	13/11	13/14	13/17	13/20	13/23	14/20	
		12/44	13/12	13/15	13/18	13/21	13/24	20/02	
		13/10	13/13	13/16	13/19	13/22	13/25	27/51	
CX.NULL	13	10/40 L	19/24	24/46	26/31				
CX.OPERS	1	10/30 L	26/44						
CX.SCP	16	10/43 L	25/01						
CX.SCP2	15	10/42 L	24/53	25/03					
CX.TEMP	14	10/41 L	19/35	19/44	20/02	20/13	25/03		
		19/35	19/44	20/02	20/12	20/13	25/07		
C.ACAP	36	3/41 D	25/37						
C.ADDOPT	37	3/42 D	25/38						
C.ADDORD	61	4/07 D	26/03						
C.ALLOC	1	3/09 D	25/09						
C.BDAT	105	4/33 D	26/21						
C.BLKCAP	106	4/34 D	26/22						
C.CAGEN	113	4/39 D	26/27						
C.CAPIN	23	3/29 D	13/10	25/26					
C.CAPOU	24	3/30 D	3/31						
C.CAPOUT	24	3/31 D	13/11	25/27					
C.CBLK	11	3/17 D	13/21	25/16					
C.CCC	15	3/21 D	13/12	25/20					
C.CCCLOA	62	4/08 D	26/04						
C.CCLIST	7	3/15 D	13/13	25/14					
C.CEVCH	13	3/19 D	13/14	25/18					
C.CFILE	10	3/16 D	13/20	25/15					
C.CGEN	114	4/40 D	26/28						
C.CHKBLK	41	3/44 D	4/30	13/15	25/40				

INITIALIZES BEAD DIRECTORY
SYMBOLIC REFERENCE TABLE.

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C.CHMPRO	123	4/47 D	26/35	
C.CHMPRW	122	4/46 D	26/34	
C.CHNGWD	67	4/13 D		
C.CLRDAE	70	4/14 D		
C.CLRIIB	74	4/18 D	26/11	
C.COPYOP	40	3/43 D	25/39	
C.CPROC	12	3/18 D	25/17	
C.CPZRO	126	4/52 D		
C.CRALBK	64	4/10 D	13/16	26/06
C.CSPROC	14	3/20 D	25/19	
C.DELAB	76	4/20 D	26/13	
C.DELBLK	42	3/45 D	25/41	
C.DELCL	57	4/05 D	26/01	
C.DELFIL	43	3/46 D	25/42	
C.DELSUB	72	4/16 D	26/09	
C.DESECH	101	4/25 D	26/16	
C.DISMAP	51	3/52 D	25/48	
C.DISPOP	107	4/35 D	26/23	
C.DISPST	54	4/02 D	25/51	
C.DISSEN	55	4/03 D	25/52	
C.DLOPR	132	5/03 D		
C.DLPROC	66	4/12 D	26/08	
C.DONATE	63	4/09 D	26/05	
C.DSCAP	20	3/24 D	3/25	
C.DSCLX	124	4/50 D	26/38	
C.DSFMAP	56	4/04 D	25/53	
C.DSPAB	104	4/32 D	13/23	26/20
C.DSPALC	121	4/45 D	26/33	
C.DSPCAP	20	3/25 D	25/23	
C.DSPCLX	102	4/26 D	26/17	
C.DSPOB	120	4/44 D	26/32	
C.DSPSP	115	4/41 D	26/29	
C.ESMGEN	25	3/32 D	25/28	
C.ESMLOC	26	3/33 D	25/29	
C.FIXC	32	3/37 D	25/33	
C.FIXD	33	3/38 D	13/24	25/34
C.FRETUR	31	3/36 D	25/32	
C.FSON	21	3/26 D	25/24	
C.GETE	6	3/14 D	4/29	
C.GETEVF	75	4/19 D	26/12	
C.HANG	6	4/29 D	25/13	
C.INCHR	117	4/43 D		
C.INMTR	131	5/02 D		
C.INTFIL	2	3/10 D		
C.JUMP	52	3/53 D	25/49	
C.MAPZRO	45	3/48 D	25/44	
C.MGETF	100	4/23 D	26/15	
C.MGETH	77	4/21 D	26/14	
C.MKMPRO	46	4/49 D	26/37	
C.MKMPRW	47	4/48 D	26/36	
C.MKOPR	27	3/34 D	13/17	25/30
C.MODPC	65	4/11 D	26/07	
C.MOVBLK	50	3/51 D	25/47	

INITIALIZES BEAD DIRECTORY
SYMBOLIC REFERENCE TABLE.

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C.MOVCP	127	4/53 D							
C.MOVEC	22	3/27 D	3/28						
C.MOVMT	130	5/01 D							
C.MPCHRO	46	3/49 D	4/49	25/45					
C.MPCHRW	47	3/50 D	4/48	25/46					
C.MVECAP	22	3/28 D	25/25						
C.NEWUN	53	4/01 D	25/50						
C.NWTMP	103	4/31 D	26/19						
C.PINT	60	4/06 D	26/02						
C.PROBE	41	4/30 D	26/18						
C.READ	3	4/27 D	14/20	25/10					
C.REDSHP	44	3/47 D	13/18	25/43					
C.RESTOR	17	3/23 D	25/22						
C.RETPAR	111	4/37 D	12/44	26/25					
C.RETURN	30	3/35 D	25/31						
C.RFILE	3	3/11 D	4/27						
C.SAVE	16	3/22 D	25/21	27/51					
C.SELF	0	3/08 D	25/08						
C.SENDE	5	3/13 D	13/22	25/12					
C.SETDAE	71	4/15 D							
C.SETIIB	73	4/17 D	26/10						
C.SPRET	125	4/51 D							
C.TIMDT	112	4/38 D	26/26						
C.TRDB	116	4/42 D	26/30						
C.UCAP	35	3/40 D	25/36						
C.UDAT	34	3/39 D	13/25	25/35					
C.USRER	110	4/36 D	26/24						
C.WFILE	4	3/12 D	4/28						
C.WRITE	4	4/28 D	13/19	25/11					
DIRBLKSZ	400	24/05 D	24/19	24/21					
DIRCLX	107	12/28 L	23/14	23/31	23/32 S				
DIRFLX	110	12/29 L	23/34	23/35 S					
DIRSIZE	400	24/04 D	24/18	24/32					
ENTRY	177	10/18	14/08 L						
ERR	1736	14/09	19/35	20/12	21/25	23/31	24/17	24/28	
		14/17	19/44	20/13	22/07	23/34	24/18	27/48 L	
		19/16	20/02	21/16	22/19	24/16	24/19	27/49	
EVCH	273	20/08 L	24/47	24/48	24/49	25/02			
FILE	315	21/08 L	24/45	24/50	25/05	26/46			
FILEPNT	74	12/18 L	21/25	21/29 S	24/20 S	24/28			
		21/22 S	21/26	21/33	24/28	24/31 S			
FILEX1	72	12/16 L	21/10 S	21/16	21/25	21/43			
FILE1	330	21/24 L	21/30						
FILE2	341	21/25	21/32 L						
FL	2366	10/17	10/24	28/07 L					
LCL	213	19/05 L	24/44	24/46	24/51	24/52	26/31	26/44	26/45

INITIALIZES BEAD DIRECTORY
SYMBOLIC REFERENCE TABLE.

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LOCALPXJ 3

MCALL 362
M.CAPIN 7777625
M.CAPOUT7777624
M.CBLK 7777612
M.CCC 7777623
M.CCLIST7777622
M.CEVCH 7777621
M.CFILE 7777613
M.CHKBLK7777620
M.CRALBK7777617
M.DSPAB 7777610
M.FIXD 7777607
M.MKOPR 7777616
M.REDSHP7777615
M.SEND E 7777611
M.UDAT 7777606
M.WRITE 7777614
NULL 214
OPER 260

PUTENT 406

PUTENT7 50
READSELF 205
REGAREA 111
RTNBASE 20
RTNDATA 131
SAVE 1741
SCRSZ 152
SET 1716

SETA 1732
SETA1 1734
SETB 1731

19/16 D	19/44 D	20/12 D	21/25 D	22/19 D	23/34 D	24/17 D	24/19 D
19/16 D	19/44 D	20/12	21/25 D	22/19 D	23/34 D	24/17 D	24/19 D
19/16 D	19/44	20/13 D	21/25 D	22/19	23/34 D	24/17	24/19 D
19/16	20/02 D	20/13 D	21/25	23/31 D	23/34	24/18 D	24/19 D
19/35 D	20/02 D	20/13	22/07 D	23/31 D	24/16 D	24/18 D	24/19
19/35 D	20/02 D	21/16 D	22/07 D	23/31 D	24/16 D	24/18 D	24/28 D
19/35 D	20/02	21/16 D	22/07	23/31	24/16 D	24/18	24/28 D
19/35	20/12 D	21/16 D	22/19 D	23/34 D	24/16	24/19 D	24/28 D
19/44 D	20/12 D	21/16	22/19 D	23/34 D	24/17 D	24/19 D	24/28
22/15 L	25/03	25/07					
13/10 D	20/02						
13/11 D	23/31						
13/21 D	24/28						
13/12 D	22/07						
13/13 D	19/35	24/18					
13/14 D	20/12	24/16					
13/20 D	24/19						
13/15 D	21/25						
13/16 D	19/44						
13/23 D	19/16						
13/24 D							
13/17 D	22/19						
13/18 D	21/16						
13/22 D	20/13	24/17					
13/25 D							
13/19 D	23/34						
19/14 L	26/41						
19/52 L	25/18	25/29	25/40	25/51	26/09	26/20	26/32
25/08	25/19	25/30	25/41	25/52	26/10	26/21	26/33
25/09	25/20	25/31	25/42	25/53	26/11	26/22	26/34
25/10	25/21	25/32	25/43	26/01	26/12	26/23	26/35
25/11	25/22	25/33	25/44	26/02	26/13	26/24	26/36
25/12	25/23	25/34	25/45	26/03	26/14	26/25	26/37
25/13	25/24	25/35	25/46	26/04	26/15	26/26	26/38
25/14	25/25	25/36	25/47	26/05	26/16	26/27	
25/15	25/26	25/37	25/48	26/06	26/17	26/28	
25/16	25/27	25/38	25/49	26/07	26/18	26/29	
25/17	25/28	25/39	25/50	26/08	26/19	26/30	
19/06	19/37	20/04	21/46	22/21			
19/26	19/46	20/15	22/09	23/29 L			
12/05 L	23/30 S	23/36					
14/08	14/20 L						
12/33 L	27/52						
10/46 L	12/45	12/46					
12/39 L	12/45						
27/48	27/51 L						
10/20	10/23	10/24	10/24	13/05 L	14/23		
19/16	20/02	21/16	22/19	23/34	24/17	24/19	
19/35	20/12	21/25	22/19	23/34	24/18	24/28	
19/44	20/13	22/07	23/31	24/16	24/19	27/15 L	
27/19	27/21	27/24	27/27	27/30	27/36 L		
27/37	27/41 L						
27/32 L	27/36						

INITIALIZES BEAD DIRECTORY
SYMBOLIC REFERENCE TABLE.

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SETENT	400	23/08 L	24/42	24/47	25/12	25/30	25/48	26/13	26/31
		24/42	24/42	24/48	25/13	25/31	25/49	26/14	26/32
		24/42	24/42	24/49	25/14	25/32	25/50	26/15	26/33
		24/42	24/42	24/50	25/15	25/33	25/51	26/16	26/34
		24/42	24/42	24/51	25/16	25/34	25/52	26/17	26/35
		24/42	24/42	24/52	25/17	25/35	25/53	26/18	26/36
		24/42	24/42	24/53	25/18	25/36	26/01	26/19	26/37
		24/42	24/42	25/01	25/19	25/37	26/02	26/20	26/38
		24/42	24/42	25/02	25/20	25/38	26/03	26/21	26/41
		24/42	24/42	25/03	25/21	25/39	26/04	26/22	26/44
		24/42	24/42	25/04	25/22	25/40	26/05	26/23	26/45
		24/42	24/42	25/05	25/23	25/41	26/06	26/24	26/46
		24/42	24/42	25/06	25/24	25/42	26/07	26/25	
		24/42	24/42	25/07	25/25	25/43	26/08	26/26	
		24/42	24/42	25/08	25/26	25/44	26/09	26/27	
		24/42	24/44	25/09	25/27	25/45	26/10	26/28	
		24/42	24/45	25/10	25/28	25/46	26/11	26/29	
		24/42	24/46	25/11	25/29	25/47	26/12	26/30	
SHPBUF	75	12/22 L	21/16	21/16					
SHPCNT	5	12/20 D	12/22	21/16					
SPCINFO	140	12/31 L	19/16	19/16					
SRETURN	135	12/44 L	14/16						
TTY	245	19/42 L	24/42	24/42	24/42	24/42	24/42	24/42	
		24/42	24/42	24/42	24/42	24/42	24/42	24/42	
		24/42	24/42	24/42	24/42	24/42	24/42	24/42	
		24/42	24/42	24/42	24/42	24/42	24/42	24/42	
		24/42	24/42	24/42	24/42	24/42	24/42	24/42	
XJLOC	53	12/12 L	19/43	20/12	21/24	22/19	24/15	24/18	24/28
		19/15	19/44	20/12	21/25	23/30	24/16	24/18	
		19/16	20/01	20/13	22/06	23/31	24/16	24/19	
		19/34	20/02	21/15	22/07	23/33	24/17	24/19	
		19/35	20/11	21/16	22/18	23/34	24/17	24/27	