

ADDRESS LENGTH
 0 653
 653

BINARY CONTROL CARDS.

IDENT ATTACH
END

BLOCKS	TYPE	ADDRESS	LENGTH
ABSOLUTE*	ABSOLUTE	0	51
PROGRAM*	LOCAL	0	653

ENTRY POINTS.

ATCHBLK	-	0	DETACH	-	243	CHMAP	-	463
ATTACH	-	30	ZEROMAP	-	402	MAKEMAP	-	634

EXTERNAL SYMBOLS.

OPERCL	TEMP1	ERRPACK	DBR	RELCLAM	M.CLOSE	M.10SEC	FR.FLAG
IPLIST	TEMP2	STKBUF	DBW	RELEASE	M.TVRES	GF.LEN	FR.ROOT
COMMROF	TEMP3	SETPCNT	GETRESP	FRW	M.HELP	GF.SUSF	FR.CLAM
COMMROL	TEMP4	DISKENT	TR.DRIV	LOADBUF	M.SWAB	GF.SUSL	FR.MEMB
COMMRWF	TEMP5	DISKERR	TR.LEVL	AUDIT	M.ABFCH	GF.IOTF	FHRADDR
COMMRWL	TEMP6	DISKINT	BLK.SIZ	NOGLOCK	M.ABFIL	GF.IOTL	FILEADR
HOLDBLK	TEMP7	FRWENT	BLK.DTY	PROBE	M.ACREQ	GF.DDSF	LEFTFREE
LOCTAB	TEMP8	FRWERB	BLK.FLG	RETCLK	M.ACRES	GF.DDSL	LFHADDR
LOCTABF	TEMP9	FRWINT	SW.SW	SYSERR	M.USRCC	GF.DATF	DARADDR
LOCTABL	TEMP10	ENTER	SW.DDS	FRETURN	M.FRWCC	GF.DATL	PAGESW
LFT	TEMP11	CLKBUF	PG.PG	RETURN	M.TRMCC	GF.APTF	MAPBUF
FLDLEN	TEMPA	DSYSYIM	PG.DDS	RETPAR	M.CLOCC	GF.APTL	SIZES
USEBRWF	TEMPB	DSWPTIM	PG.DTY	ERRPARG	M.ACTCC	GF.HSHF	SIZE
USERRWL	TEMPC	DUSRTIM	PTR.PTR	ERRFILE	M.TRYCC	FHRHASH	NUMRESP
DATMAP	TEMPO	MYSORE	PTR.DDS	ERRALOC	M.DFILT	DARHASH	CREATER
TERMRWL	TEMPE	MYCODE	PTR.CM	ERRMAP	M.DOBJS	GF.HSHL	CREBLKR
TERMRWF	TEMPF	MYSUBP	PTR.DTY	CALBEAD	NOBJS	GF.TRVF	DELBLKR
TERMRWL	TEMPG	MYEVCH	PTR.NUM	REGS	M.BFILE	FHB	OPENR
CLOSRLF	TEMPH	READCAP	CREATE	D.ENTRY	M.DDREQ	FR.LEN	ATTACHR
CLOSRLW	TEMPV	WRITCAP	CREBLK	D.FNAME	M.DDRSP	FR.NAME	DETACHR
CLOSROF	TEMPW	SAVEREG	DELBLK	DBUG1	M.RBUFS	FR.WD3	ZROMAPR
READRWF	TEMPX	RESTREG	OPEN	DSKLCK	M.WBUFS	FR.SHAP	CHMAPR
READRWL	TEMPY	MAINCL	CONVERT	DBUG2	M.SLOTS	FR.FUND	CHMAPB1
READONF	TEMPZ	FILCL	SETUP	M.AUTH	M.LOCKS	FHR	SETUPR
READONL	MYIDENT	SLEEP	DECODE	M.MKCAP	NLOCKS	FR.LEN	CREATB1
HENTRY	MYDAR	MYRESP	CRELFH	REDSHP	M.DDSCT	FR.NAME	CLOSER
DENTRY	MYUNIT	RESP	OPENDAR	GDSKHDR	M.FHRL	FR.WD1	MOVBLKR
ORGADDR	MYSWOC	GFILE	PRVOPEN	FDSKHDR	M.DARL	FR.WD2	CREPTRR
ORGCLST	DDSIPL	HFILE	MKPTR	GDSKPTR	M.HASHL	FR.WD3	DORESPR
ORGMAP	IOTIPL	FILECAP	DSPTR	FDSKPTR	M.ADDS	FR.SUSP	ERRNUM
INTDAT	HASHIPL	CTEMP	CLOSE	GDSKDAT	M.ASUSP	FR.LOCK	ERRCLAS
AP0	SUSPIPL	UDSKSCR	ECLOSE	FDSKDAT	M.ADISK	FR.DAR	TABADDR
API	DATIPL	BFILE	DARSPA	GETDSK	M.SDISK	FR.OPEN	ECMMRW

AP2	APTIPL	DDRSP	CLODAR	FREEDSK	M.FDISK	FR.CAPX	EC:MMRO
AP3	RETPARM	RBUFS	HASH	BUSYDSK	M.FCLEV	FR.DBSZ	EC:ZRM
AP4	RETERR	RETRY	DELHASH	L.MNCL	M.UNAME	FR.ONEL	EC:DSAM
AP5	PASSERR	SLOTS	EXCLAIM	M.GFILE	M.USCTR	FR.FROZ	ATACHRI
AP6	USRPACK	HBR	SHCLAIM	M.HFILE	M.OPCL	FR.WRIT	EC:DSCP
AP7	IOTBUF	HBW	LOCK	M.FILCL	M.IOCTR	FR.SIZE	
AP8	PROCADR	PBR	UNLOCK	M.EMPTY	M.TWAIT	FR.SHAP	
TEMP0	ERRADDR	PBW	UNLOCKW	M.RETRY	M.CLTIM	FR.FUND	

	IDENT	ATTACH
	*	
	*	
0	PARAMS	XTEXT
0	MACROS	XTEXT
0	SYSCALL	XTEXT
	*	
	EXT	OPERCL, IPLIST
	MACSET	OPERCL, IPLIST, ECS
0	BEADTST	XTEXT
0	ERRORS	XTEXT
0	TYPES	XTEXT
	*	
	*	PARAMETER INDICES
0	P0	EQU
1	P1	EQU
2	P2	EQU
3	P3	EQU
4	P4	EQU
5	P5	EQU
6	P6	EQU
7	P7	EQU
	*	

```

*PAGE
*
* ATTACH...ATTACH...ATTACH
*
* ENTRY FOR DISK SYS ATTACH ACTION
*
* ENTRY ATCHBLK
*
0 5150000000 X ATCHBLK SA5 API ECS FILE CAP INDEX
  7160000000 X DISPCAP X5 X7* ECS FILE UNIQUE NAME
5 6170000007 + SB7 ATCHBLK1
  0200000000 X JP CONVERT LOOK UP AND LOCK FILE
*
6 0200000024 + * JP ATCHBLK5 NO SUCH OPEN FILE
7 5110000000 X ATCHBLK1 SA1 AP2 FILE ADDRESS
  5120000000 X SA2 AP3 WORD COUNT
10 66600 SB6 B0 REG ATTACH
  6170000015 + SB7 ATCHBLK2
11 0200000030 * JP ATTACH
*
* ATTACH RETURN VECTOR
12 0200000026 + * JP ATCHBLK6 I/O ERROR (ERRNUM SET)
13 0200000021 * + JP ATCHBLK4 ERROR DURING ATTACH
14 0200000017 * + JP ATCHBLK3 MISSING BLOCK
15 10611 ATCHBLK2 BX6 X1 STORE ADDR OF 1ST 1ST BLK NOT
  5160000016 X SA6 USRPACK+16B ATTACHED IN USER X6
  0200000000 X JP RETURN
*
* MISSING BLOCK
17 10611 ATCHBLK3 BX6 X1 PASS ADDR OF MISSING BLK IN X6
  5160000016 X SA6 USRPACK+16B
20 0200000000 X JP FRETURN
*
* ERROR DURING ATTACH
21 10611 ATCHBLK4 BX6 X1 PASS ADDR OF ERROR BLK
  5160000016 X SA6 USRPACK+16B
22 5150000000 X SA5 ERRCLAS
  63750 SB7 X5
23 0270000000 JP B7 GO DO ERROR RETURN
*
24 7160000025 ATCHBLK5 SX6 E*NOFIL NO SUCH OPEN DISK FILE
  5160000000 X SA6 ERRNUM
25 0200000000 X JP ERRFILE
*
* I/O ERROR
26 10611 ATCHBLK6 BX6 X1
  5160000016 X SA6 USRPACK+16B
27 0200000000 X JP ERRFILE
  
```

ATTACH FILE BLOCK(S)

- NOTES:
- A) FOR FILES WHICH ARE EITHER ZERO LEVEL OR LOCALLY FROZEN, ONLY ADDRESS CHECKING IS PERFORMED
 - B) A BUSY POINTER WILL CAUSE A WAIT
 - C) A POINTER BLOCK STILL ON THE DISK WILL CAUSE A WAIT
 - D) NON-EXISTANT POINTER OR DATA BLOCKS WILL CAUSE AN ↑ABORT↑ RETURN. BLOCKS UP TO THE POINT OF THE NON-EXISTANT BLOCK WILL BE ATTACHED.
 - E) ERRORS DETECTED WHILE PROCESSING BLOCKS CAUSE AN ERROR RETURN... AN I/O ERR ON TERMIN RESPONSE CAUSES SPECIAL RETURN
 - F) ↑DECODE↑ IS CALLED FOR EACH FILE BLOCK
 - G) EITHER THE REGULAR OR MAP ATTACH COUNT IS INCREMENTED IN ATTACHED BLOCK RECORD
 - H) IF BLOCK IS NOT ALREADY LOCALLY ATTACHED, AN ATTACHED BLOCK RECORD (ABR) IS CONSTRUCTED AND SWAPPED SPACE IS RESERVED
 - I) ON MAP ATTACH, ↑ATTACH↑ WAITS FOR ALL BLOCKS TO ARRIVE FROM THE DISK

ON ENTRY: X1 = STARTING FILE ADDRESS
X2 = WORD COUNT
B6 = 0 IF NORMAL ATTACH
1 IF MAP ATTACH
B7 = NORMAL RETURN LINK
FILE IS LOCKED

ON EXIT: FILE IS UNLOCKED
X1 = 1ST BKL NOT ATTACHED OR 0
NORMAL RETURN = B7
ABORT RETURN = B7-1
ERROR RETURN = B7-2 (↑ERRNUM↑ SET; ↑ERCLAS↑=
ERRCLASS: XFER POINT)
I/O ERROR = B7-3 (ERRNUM SET)

REGISTERS USED: ALL

ROUTINES CALLED: ↑SETUP↑, ↑DARSPA↑, ↑DECODE↑, ↑DBR↑,
↑UNLOCK↑, ↑PBR↑, ↑UNLOCKW↑, ↑LOCK↑

TEMPORARIES USED: TEMP0, TEMP1, TEMP2, TEMP3, TEMP4,
TEMP5, ATTACHR, TEMP6

```

*
*
*
*
*
30  76670      76760      ATTACH  SX6      B7      SAVE RETURN LINK
      5160000000 X      SX7      B6      SAVE MAP FLAG
31  5160000000 X      SA6      ATTACHR      BACK UP RETURN LINK
      5170000000 X      SA6      XATTACHR1      TEMP0 -> MAP ATTACH FLAG
32  7160000000      SA7      TEMPO
      5160000000 X      SX6      0
      SA6      TEMP6      INITIALIZE RESPONSE COUNTER
*
33  6170000040 +      SB7      ATTACH1      SET UP FOR PROCESSING SECTION
      0200000000 X      JP      SETUP      OF FILE
*
34  0200000221 +      +      JP      ATTACH38      RETURN VECTOR FOR +SETUP+
*                               FILE ADDRESS ERROR
35  0200000210 +      +      JP      ATTACH30      (B7 = ERROR NUMBER)
*                               ONE LEVEL FILE (UNLOCKED)
36  0200000173 +      +      JP      ATTACH26      FILE LOCALLY FROZEN
37  0260000000      +      JP      B6      FILE GLOBALLY FROZEN (RETURN
*                               TO +SETUP+)
*
40  73650      ATTACH1  SX6      X5      NUM WDS PER DATA BLOCK
      5160000000 X      SA6      TEMP1     TEMP1 -> DATA BLOCK SIZE
41  5170000000 X      SA7      TEMP2     TEMP2 -> SCALED WORD COUNT
*
*
*
*
*
*
42  5150000000 X      ATTACH4  SA5      FHRADR      DECODE NEXT FILE ADDRESS
      6170000052 +      SB7      ATTACH5
43  63150      SB1      X5
      0200000000 X      JP      DECODE      XI = FILE ADDRESS
*
*
*
*
*
44  0200000224 +      +      JP      ATTACH40      I/O ERROR ON DISK
45  0200000166 +      +      JP      ATTACH21      BUSY POINTER
46  0200000171 +      +      JP      ATTACH25      NON-EXISTANT POINTER BLOCK
47  0200000156 +      +      JP      ATTACH19      POINTER BLOCK NOT IN ECS
50  0200000171 +      +      JP      ATTACH25      NON-EXISTANT DATA BLOCK
51  0200000053 +      +      JP      ATTACH6      DATA BLOCK NOT IN ECS
52  0200000117 +      ATTACH5  JP      ATTACH15     DATA BLOCK IN ECS
*
*
*
*
*
DATA BLOCK ON THE DISK

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53	5150000000 X	ATTACH6	SA5	LFTFREE	CHECK FOR ROOM FOR ATTACHED
	0305000216 +		ZR	X5, ATTACH34	BLOCK RECORD (ABR)
54	76650		SX6	B5	SAVE DDS PTR ADDR
	5160000000 X		SA6	TEMP4	
	10744		BX7	X4	SAVE DATA BLK PTR
55	5170000000 X		SA7	TEMP3	
		*			
	5150000000 X		SA5	ACCOUNT SWAPPED ECS SPACE	
56	63550		SB5	TEMP1	DATA BLOCK SIZE
	6140000000		SB4	X5	
57	5140000000 X		SA4	R. SWECS	
	63340		SB3	MYDAR	
60	6160000062 +		SB6	X4	
	0200000000 X		JP	ATTACH6A	
				DARSPA	
61	0200000223 +	*	JP	ATTACH39	
62	5150000000 X	ATTACH6A	SA5	TEMP0	INDICATE RESPONSE OR NOT
	63550		SB5	X5	
63	5150000000 X		SA5	TEMP4	
	5140000000 X		SA4	TEMP3	
64	20404		LX4	4	* CONSISTANCY CHECK
	43610		MX6	8	* ATTACH COUNT MUST BE = 0
65	0316000234 +		BX6	X6*X4	
	11664		NZ	X6, ATTACH43	
	20470		LX4	60-4	
	43601		MX6	1	SET ATTACH COUNT = 1
66	20661		LX6	1+48	
	12446		BX4	X4+X6	
	6170000070 +		SB7	ATTACH7	INNITIAE DATA BLOCK READ
67	0200000000 X		JP	DBR	
70	5150000000 X	ATTACH7	SA5	TEMP0	ON MAP ATTACH INCR RESPONSE
	0305000075 +		ZR	X5, ATTACH7A-B	COUNT
71	5150000000 X		SA5	TEMP6	
	7265000001		SX6	X5+1	
72	54650		SA6	A5	
	7256777770		SX5	X6-EVCHSZ+1	CHECK FOR RESPONSE LIMIT
73	0335000075 +		NG	X5, ATTACH7A-B	
	6150000075 +		SB5	ATTACH7A	
74	0200000175 +		JP	ATTACH27	GO COLLECT RESPONSES
75	5130000000 X	ATTACH7A	SA3	TEMP4	X3 * DDS POINTER ADDRESS
		*			
		*			
		*			
		*			
		*			
		*			
		*			
76	5120000000 X	ATTACHA	SA2	LFHADDR	CONSTRUCT ATTACHED BLOCK RECORD (ABR)
	43601		MX6	1	(X3=DDS ADDR OF POINTER)

SA4 MYDAR

B

B

insert

B

X

20645
 77 5140000000 X
 0304000101 +
 100 20614
 101 5222000001
 73720
 13227
 102 20722
 12773
 5140000000 X
 103 53540
 12776
 10655
 54640
 104 54750
 12624
 10711
 105 7150000001
 20544
 36665
 106 54620
 5077000001

ATTACH9

*
*
*
*

ATTACH10

107 5120000000 X
 5130000000 X
 110 73220
 36112
 37632
 54630
 111 0326000042 +

*PAGE

LX6
 SA4
 ZR
 LX6
 SA2
 SX7
 BX2
 LX7
 BX7
 SA4
 SA5
 BX7
 BX6
 SA6
 SA7
 BX6
 BX7
 SX5
 LX5
 IX6
 SA6
 SA7

I+36
 TEMP0
 X4,ATTACH9
 I2
 X2+1
 X2
 X2-X7
 I8
 X7+X3
 LFTFREE
 X4
 X7+X6
 X5
 A4
 A5
 X2+X4
 X1
 I
 36
 X6+X5
 A2
 A7+1

LOCAL ATTACH COUNT I
 TEST FOR MAP ATTACH
 SHIFT TO MAP ATTACH
 PTR TO HEAD OF ATTACHED BLOCK LIST
 ADD IN DDS ADDR
 FREE LIST HEAD LINK
 ADD IN ATTACH COUNT
 NEW HEAD LINK FOR FREE LIST
 1ST WD OF NEW ABR
 NEW HEAD LINK FOR ABR LIST
 2ND WD OF NEW ABR FILE ADDR
 INCR NUM ATTACHED BLKS

INCREMENT FILE ADDRESS

SA2
 SA3
 SX2
 IX1
 IX6
 SA6
 PL

TEMP1
 TEMP2
 X2
 X1+X2
 X3-X2
 A3
 X6,ATTACH4

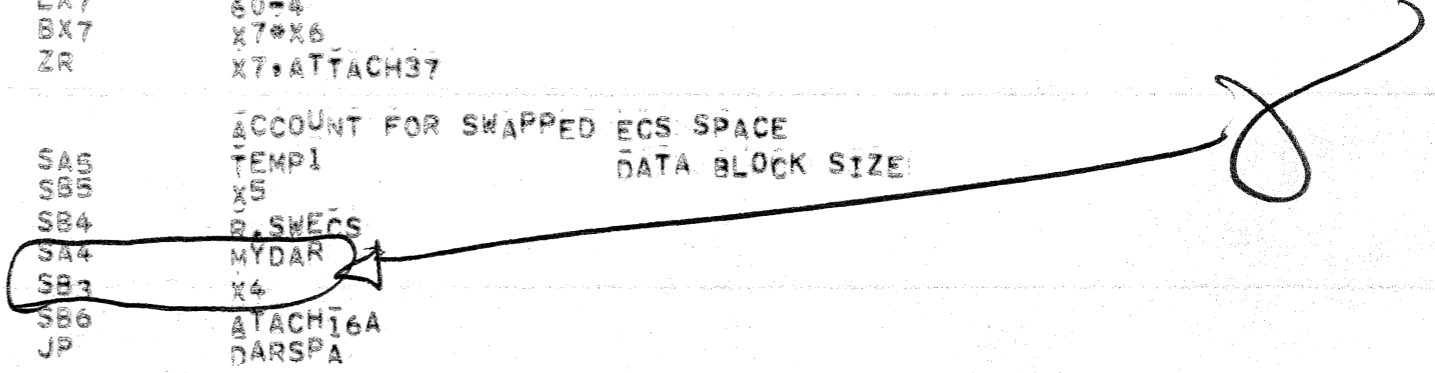
SCALED WORD COUNT
 DATA BLOCK SIZE
 INCR FILE ADDRESS
 DECR WORD COUNT
 GO TO MAIN LOOP

				TERMINATION ACTION
		*		(X1 = ADDR 1ST BLK NOT ATTACH)
		*		
112	5150000000 X 0305000114 +	ATTACH11 SAS ZR	TEMP6 X5, ATACH11A	CHECK FOR RESPONSES TO PROCESS JP IF NONE TO DO
		*		
113	6150000114 + 0200000175 +	SB5 JP	ATACH11A ATTACH27	GO COLLECT RESPONSES
		*		
114	6160000115 + 0200000000 X	ATACH11A SB6 JP	ATTACH14 UNLOCK	UNLOCK FILE
		*		
		*		
115	5150000000 X 63650	ATTACH14 SAS SB6	ATTACHR X5	RETURN MAY BE BUGGERED BY ERROR
116	0260000000	JP	R6	EXIT

```

*
*
*
*
117 5120000000 x          ATTACH15 SA2    LFHADDR
      7135000000          SX3    B5+0
120 5222000001          SA2    X2+1
*
121 5222000000          ATTACH16 SA2    X2+0
      73520              SX5    X2
      13553              BX5    X5-X3
122 0305000151 +        ZR      X5,ATTACH17  DDS ADDR FROM ABR
      21222              AX2    X5,ATTACH17  JP IF LOCALLY ATTACHED
      73220              SX2    X2
123 0312000121 +        NZ      X2,ATTACH16  LOOP TO END OF ABR LIST
*
*
*
124 5120000000 x          SA2    BLOCK NOT LOCALLY ATTACHED YET
      0302000216 +      ZR      LFTFREE
*
125 76750                SA7    X2,ATTACH34  CHECK FOR ABR SPACE
      5170000000 x      SX7    B5
*
126 20661                SA7    TEMP4        SAVE POINTER ADDRESS IN DDS
      36664              MX6    T
      43601              LX6    T+48
*
127 43710                IX6    X6+X4
      5160000000 x      SA6    TEMP5
      20770              MX7    R
*
130 0307000220 +        LX7    60-4
      11776              BX7    X7*X6
*
131 63550                ZR      X7,ATTACH37
      5150000000 x      SA5    ACCOUNT FOR SWAPPED ECS SPACE
*
132 6140000000          SA4    TEMP1        DATA BLOCK SIZE
      5140000000 x      SB5    X5
*
133 6160000135 +        SB4    R,SWECS
      0200000000 x      SA4    MYDAR
*
134 0200000223 +        SB3    X4
*
135 5130000000          SB6    ATTACH16A
      63530              JP      DARSPA
*
136 7160000000 x          JP      ATTACH39  INSUFFICIENT SPACE
*
ATTACH16A SA3    TEMP4        RECOVER DDS ADDR
      SB5    X3
*
*
WRDDS    B5,TEMP5,1  (TEMP5 = NEW DATA BLK POINTER)
                WRITE POINTER TO DDS

```



150 0200000076 +

JP

ATTACH8

GO MAKE ABR AND DO ACCOUNTING

151 5140000000 x
43601 20645

*
*
ATTACH17

SA4
MX6

TEMPO

BLOCK LOCALLY ATTACHED ALREADY
MAP ATTACH FLAG

152 0304000153 +
20414

LX6
ZR

I
I+36

JP IF NOT MAP ATTACH

153 36626
0336000217 +

ATTACH18

LX6
IX6

I2

X2+X6

JP IF MAP COUNT TOO LARGE

154 20714
0337000217 +
54620

NG

X6, ATTACH36

JP IF REG ATTACH COUNT TOO LARGE

BX7
LX7

X6

I2

NG
SA6

X7, ATTACH36
A2

155 0200000107 +

JP

ATTACH10

PROCEED TO NEXT BLOCK

```

*
*
*
*
*
*
156 5150000000 X ATTACH19 SA5 TEMP6 CHECK FOR PENDING RESPONSES
      0305000162 + ZR X5,ATTACH19B JP IF NO RESPONSES TO DO
*
157 63320 SB3 X2
      10244 BX2 X4 SHUFFEL REGISTERS TO SAVE STUFF
      66450 SB4 B5 THRU ATTACH27↑
160 6150000161 + SB5 ATACH19A GO COLLECT RESPONSES
      0200000175 + JP ATTACH27
161 10422 ATACH19A BX4 X2
      66540 SB5 B4
      76230 SX2 R3
*
162 76550 ATACH19B SX5 R5 CALL FOR POINTER BLOCK READ
      63520 SB5 X2
      6170000164 + SB7 ATTACH20
163 66400 SB4 B0 B4 ← 0 FOR ↑PBR↑
      0200000000 X JP PBR
*
164 0326000042 + ATTACH20 PL X6,ATTACH4 CONTINUE!
      7276000003 SX7 X6+3
165 0307000235 + ZR X7,ATTACH44 JP IF OUT OF DDS
      0200000224 + JP ATTACH40 I/O ERROR
*
*
*
*
*
*
166 5150000000 X ATTACH21 SA5 TEMP6
      0305000170 + ZR X5,ATTACH24 JP IF NO PENDING RESPONSES
*
167 6150000042 + SB5 ATTACH4 GO COLLECT RESPONSES AND THEN
      0200000175 + JP ATTACH27 TR-TRY POINTER
*
170 6160000042 + ATTACH24 SB6 ATTACH4 UNLOCK FILE AND WAIT ON SUSPENSE
      0200000000 X JP UNLOCKW LIST AND THEN RE-LOCK AND TRY
      AGAIN
*
*
*
*
*
*
171 5150000000 X ATTACH25 SA5 ATTACHR NON-EXISTANT DATA OR POINTER BLOCK
      7265777776 SX6 X5-1 BUGGER TERMINATION RETURN
172 54650 SA6 A5 TO MAKE ABORT EXIT
      0200000112 + JP ATTACH11 X1 = FILE ADDR
      DO TERMINATION ACTION
*
*
*

```

FROZEN FILE

173 5150000000 X
63650
13111
174 0200000000 X

*
ATTACH26 SA5
SB6
BX1
JP

ATTACHR
X5
X1-X1
UNLOCK

EXIT THRU ↑UNLOCK↑
CLEAR FILE ADDR

SUBROUTINE TO COLLECT RESPONSES FROM
DATA BLOCK READS
↑TEMP6↑ = NUM RESPONSES PENDING
B5 = RETURN LINK
XI IS UNCHANGED

175 5150000000 X
0305000205 +
176 7265777776
6170000200 +
177 54650
0200000000 X

ATTACH27 SA5
ZR
SX6
SB7
SA6
JP

TEMP6
X5, ATTACH29 JP IF DONE
X5-1
ATTACH28
A5
GETRESP

(X6 = PTR ADDR; -1 IF I/O ERR;
-2 IF MEMBERSHIP; X7 = FILE ADDR)

(↑GETRESP↑ USES B6, X3, X4, A5/X5, A6/X6
AND A7/X7)

200 0326000175 +

ATTACH28 PL

X6, ATTACH27 PROCEED IF OK

I/O ERROR

201 0336000215 +
7266000001
6150000206 +
10577
20522
12656
43701

SX6
NG
SB6
BX5
LX5
BX6
MX7

X6+1
X6, ATTACH33 JP IF REAL TROUBLE
ATTACH29A
X7
IB
X5+X6
PROCESS I/O ERROR AFTER
GETTING REST OF RESPONSES

203 12667
5160000000 X
204 0200000175 +

BX6
SA6
JP

X6+X7
ERRNUM
ATTACH27
ADD SPECIAL ERROR FLAG

205 0250000000

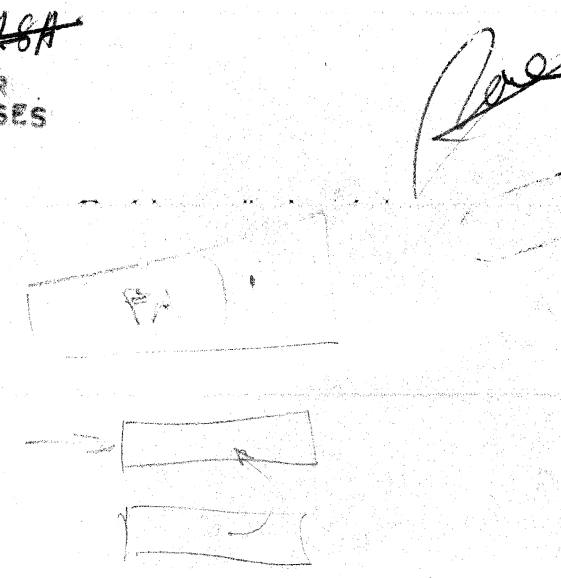
ATTACH29 JP

B5 EXIT

206 5150000000 X
7265777774
207 5160000000 X
0200000112 +

ATTACH29A SA5
SX6
SA6
JP

I/O ERROR
XATTACH1
X5-3
ATTACH2
ATTACH11
DO TERMINATION ACTION



*
*
*
*
*
*
*
*
*
*
*

ONE LEVEL FILE ... HANDLE SPECIALLY

210	5150000000 X	ATTACH30	SA5	TEMPO	EXIT IF NOT MAP ATTACH
	13111		BX1	X1-X1	CLEAR FILE ADDR
211	0305000115 +		ZR	X5,ATTACH14	
	5120000000 X		SA2	LFHADDR	
212	5222000001		SA2	X2+1	
	53220		SA2	X2	1ST WD OF ABR
	43601		MX6	1	
213	20661		LX6	1+36+12	
	36626		IX6	X2+X6	INCR MAP ATTACH
	0336000232 +		NG	X6,ATTACH42	JP ON OVERFLOW
214	54620		SA6	A2	
	0200000115 +		JP	ATTACH14	EXIT

230 7265777775
54650
231 0200000112 *

SX6
SA6
JP

X5-2
A5
ATTACH11

DO TERMINATION ACTION

232 7160000030
5160000000 X
233 0200000000 X

ATTACH42 SX6
SA6
JP

E.TMA
ERRNUM
ERRFILE

TOO MANY MAP ATTACHES ON
ON ZERO LEVEL FILE

234 0100000000 X

ATTACH43 RJ

SYSERR

ATTACH COUNT .NE. 0

235 7160000025
236 20122
12661

ATTACH44 SX6
ATTACH45 LX1

E.NODDS
18.
X6+X1

OUT OF DDS SPACE DURING ↑PBR↑

237 5160000000 X
20152
7170000000 X

LX1
SA6

60-18
ERRNUM

240 5170000000 X
5150000000 X
241 7265777775
54650

SX7
SA7

ERRALOC
ERRCLAS
ATTACHR

242 0200000112 *

SA5
SX6
SA6
JP

X5-2
A5
ATTACH11

END ATTACH...END ATTACH...END ATTACH

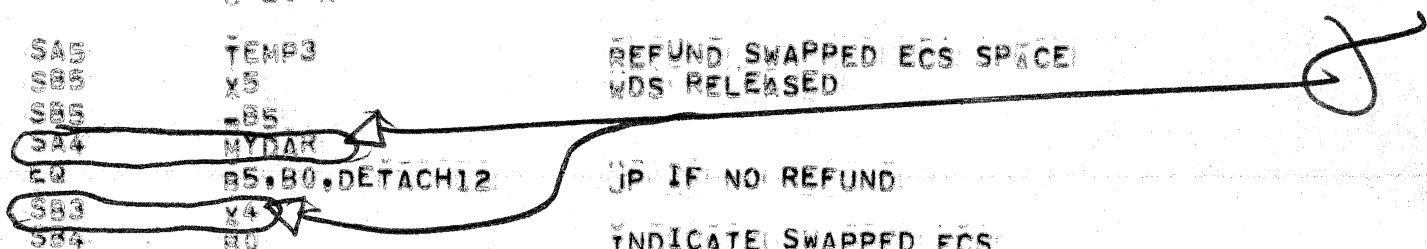

```

*
*
246 0200000373 + *
* JP DTACH24A RETURN VECTOR FOR ↑SETUP↑
* FILE ADDRESS ERROR
* (B7 = ERROR NUMBER)
247 0200000360 + * JP DTACH19A ZERO LEVEL FILE (FILE UNLOCKED)
250 0200000356 + * JP DETACH19 FILE LOCALLY FROZEN
251 0260000000 * JP B6 GLOBALLY FROZEN (RETURN TO SETUP)
*
252 10655 DETACH1 BX6 X5 NUM SECTORS//NUM WDS PER BLK
13777 BX7 X7-X7 ACCUMULATED SWAPED ECS RELEASED
5170000000 X SA7 TEMP3
253 5160000000 X SA6 TEMP1 (TEMP2 = SCALED WORD COUNT)
*
*
* MAIN LOOP
254 5120000000 X DETACH2 SA2 LFHADDR (↑LFHADDR↑ SET IN ↑CONVERT↑)
43330 MX3 60-36
66200 SB2 B0
255 5222000001 SA2 X2+1 PREPARE TO SCAN ATTACHED BLOCKS
PTR TO HEAD OF ATTACH BLK LIST
*
* SEARCH ATTACHED BLOCK LIST
256 73220 DETACH3 SX2 X2
0302000370 + ZR X2,DETACH22 JP IF END OF ABR LIST
53220 SA2 X2 1ST WD OF ABR
257 5042000001 SA4 A2+1 2ND WD OF ABR
20252 LX2 60-18
37641 IX6 X4-X1
260 15663 BX6 -X3*X6
0306000242 + ZR X6,DETACH6 JP IF FOUND DESIRED ADDRESS
64220 SB2 A2 SAVE PRECEDING ABR ADDR
261 0200000256 + JP DETACH3 LOOP
*
*
* GOT LOCAL ATTACHED BLOCK RECORD (ABR)
262 5150000000 X DETACH6 SA5 TEMP0 MAP ATTACH FLAG
20236 LX2 18+12 SHIFT ABR TO MAP ATTACH FIELD
43660 MX6 60-12
263 0305000266 + ZR X5,DETACH7 JP IF REGULAR DETACH
15726 BX7 -X6*X2
43673 MX6 59
264 0307000400 + ZR X7,DETACH28 SYS ERR
36696 IX6 X2*X6 DECR MAP ATTACH COUNT
20660 LX6 36+12
265 0200000270 + JP DETACH8
*
*
266 20214 DETACH7 LX2 12 REGULAR DETACH
15726 BX7 -X6*X2
0307000372 + ZR X7,DETACH24 TOO MANY REG DETACHES

```

267	43673		MX6	59	x6 * -1
	36626		IX6	x2+x6	DECR REG ATTACH COUNT
	20644		LX6	36	
270	43730		* DETACH8	24	
	11767		MX7	x6*x7	
	0307000305	+	BX7	x7, DETACH13	JP IF BOTH COUNTS ZERO
271	54620		ZR	A2	STORE ABR
			SA6		
			* * *		STEP TO NEXT FILE BLOCK
272	5150000000	X	DETACH9	TEMP2	SCALED WORD COUNT
	5140000000	X	SA5	TEMP1	NUM SECTORS//NUM WDS PER BLK
273	73440		SA4	X4	DATA BLOCK SIZE
	36114		SX4	x1+x4	INCR FILE ADDR
	37654		IX1	x5-x4	DECR WORD COUNT
	54650		IX6	A5	
274	0326000254	+	SA6	x6, DETACH2	LOOP IF NOT DONE
			PL		
			* * * *		TERMINATION ACTION
275	6160000276	+	DETACH10	SB6	UNLOCK FILE
	0200000000	X	JP	DETACH11	UNLOCK
276	5150000000	X	DETACH11	SA5	REFUND SWAPPED ECS SPACE
	63550		SB3	x5	WDS RELEASED
	67505		SB5	-85	
277	5140000000	X	SA4	MYDAR	
	0450000303	+	EM	B5, B0, DETACH12	JP IF NO REFUND
300	63340		SB3	x4	
	66400		SB4	B0	INDICATE SWAPPED ECS
	6160000303	+	SB6	DETACH12	REFUND SPACE
301	0200000000	X	JP	DARSPA	
302	0100000000	X	+	RJ	CONSISTANCY
303	5150000000	X	DETACH12	SA5	RETURN LINK POSSIBLY CHANGED
	63650		SB6	x5	
304	0260000000		JP	B6	EXIT

*PAGE



```

*
*
*
*
*
305 5140000000 X DETACH13 SA4 LFTFREE RELEASE ABR
      73360 SX3 X6
      21622 AX6 18
306 73260 SX2 X6 ADDR OF NEXT ABR
      10644 BX6 X4
      54620 SA6 A2 LINK ABR TO FREE LIST
      74620 SX6 A2
307 54640 SA6 A4 NEW HEAD OF FREE LIST
      0402000312 + EQ B0,B2,DETACH14 JP IF 1ST ABR IN LIST INVOLVED
      56520 SA5 B2 1ST WD PREVIOUS ABR
310 20552 LX5 60-18
      73650 SX6 X5
      13556 BX5 X5-X6 CLEAR OLD LINK
      12652 BX6 X5+X2 SET NEW LINK
311 20622 LX6 18
      54650 SA6 A5
      0200000314 + JP DETACH15
*
*
*
*
*
312 5150000000 X DETACH14 SA5 LFHADDR FIX UP HEAD OF ABR LIST
      5255000001 SA5 X5+1
313 73650 SX6 X5
      13556 BX5 X5-X6
      12652 BX6 X5+X2
      54650 SA6 A5
*
*
*
*
*
314 5150000000 X DETACH15 SA5 LFHADDR DECREMENT LOCAL ATTACHED BLOCK COUNT
      5255000001 SA5 X5+1
315 7170000001 SX7 1
      20744 LX7 36
      37657 IX6 X5-X7
316 54650 SA6 A5
*
*
*
*
*
317 5140000000 X SA4 TEMP1 DECREMENT GLOBAL ATTACH COUNT
      7274000000 SX7 X4+0 INCR SWAPPED ECS TO REFUND
      5140000000 X SA4 TEMP3 NUM WDS PER DATA BLOCK
320 30647 IX6 X4+X7
      54640 SA6 A4
*
*

```

321	7160000000 X		DTACH15B	REDDS	X3,TEMP5,1	READ DATA BLOCK POINTER
333	5150000000 X			SA5	TEMP5	
		0335000375 +		NG	X5,DETACH25	CONSISTANCY (DATA BLK)
334	20501			LX5	1	
		0335000353 +		NG	X5,DETACH18	JP IF BUSY
		20501		LX5	1	
335	0325000345 +			PL	X5,DTACH15D	JP IF POSSIB. I/O ERROR STATUS
		20502		LX5	2	
		43610		MX6	8	
336	11765			BX7	X6*X5	
		0307000377 +		ZR	X7,DETACH27	CONSISTANCY (ATTACH COUNT)
		43701		MX7	1	DECREMENT ATTACH COUNT
337	20765			LX7	1+48+4	
		37757		IX7	X5=X7	
		11667		BX6	X6*X7	
		20770		LX7	60-4	
			*			
340	0306000350 +			ZR	X6,DETACH16	JP IF GLOBAL COUNT GOES ZERO
		54750		SA7	A5	
341	7160000000 X		DTACH15C	WRDDS	*,*,*	WRITE BACK POINTER
344	0200000272 +			JP	DETACH9	PROCEED TO NEXT BLOCK
			*			
345	20501		DTACH15D	LX5	1	CHECK FOR I/O ERR STAU
		0325000375 +		PL	X5,DETACH25	*CONSISTANCY
		20571		LX5	60-3	
346	43613			MX6	3+8	
		20673		LX6	59	
		15656		BX6	X6*X5	CLEAR STATUS
		54650		SA6	A5	
347	0200000341 +			JP	DTACH15C	

GLOBAL COUNT BECOMES ZERO
X7 = DATA BLK PTR FROM DDS
X3 = DDS ADDR OF POINTER

			*			
			*			
			*			
			*			
			*			
			*			
			*			
350	10477		DETACH16	BX4	X7	INITIATE DATA BLOCK WRITE
		73530		SX5	X3	DATA BLOCK POINTER
		6170000352 +		SB7	DETACH17	POINTER ADDRESS
351	0200000000 X			JP	DBW	X1 = FILE ADDRESS
			*			
352	0336000371 +		DETACH17	NG	X6,DETACH23	JP IF PREVIOUS I/O ERROR
		0200000272 +		JP	DETACH9	PROCEED TO NEXT BLOCK

READ ONLY FILE

BUSY POINTER

353	43603		DETACH18	MX6	3	CONSISTANCY CHECK
	11665			BX6	X6*X5	CHECK FOR NON-EXISTANT
354	7266777772	20603		LX6	3	
		0306000401 +		SX6	X6-5	
				ZR	X6,DETACH29	BAD NEWS
355	6160000321 +			SB6	DETACH15B	(X3 = DDS PTR ADDR)
	0200000000 X			JP	UNLOCKW	WAIT ON SUSPENSE LIST AND THEN TRY AGAIN

FROZEN FILE

356	5150000000 X		DETACH19	SA5	DETACHR	UNLOCK FILE AND EXIT
	63650			SB6	X5	
357	0200000000 X			JP	UNLOCK	

ONE LEVEL FILE .. SPECIAL HANDLING

360	5150000000 X		DTACH19A	SA5	TEMPO	IF NOT MAP ATTACH EXIT
	0305000303 +			ZR	X5,DETACH12	
361	5140000000 X			SA4	LFHADDR	
	5244000001			SA4	X4+1	
362	53440			SA4	X4	1ST WD OF ABR
	20414			LX4	12	
	43660			MX6	60-12	* CONSISTANCY
363	0306000400 +	15646		BX6	-X6*X4	* CONSISTANCY
	43673			ZR	X6,DETACH28	* CONSISTANCY
	20660	36646		MX6	59	
364	54640			IX6	X4+X6	DECR MAP ATTACH COUNT
	0200000303 +			LX6	36+12	
				SA6	A4	
				JP	DETACH12	

ERRORS

X6 =: ERROR NUMBER

365	10711		DETACH20	BX7	X1	FORM ERROR NUMBER WITH FILE ADDR
	20722			LX7	18	
	12667			BX6	X6+X7	
366	5160000000 X			SA6	ERRNUM	SAVE ERROR NUMBER
	7160000000 X			SX6	ERRFILE	BUGGER RETURN
367	5160000000 X			SA6	DETACHR	
	0200000275 +			JP	DETACH10	

370	7160000032	0200000365 +	* DETACH22	SX6 JP	E*NATH DETACH20	BLOCK NOT LOCALLY ATTACHED
371	7160000027	0200000365 +	* DETACH23	SX6 JP	E*DIOERR DETACH20	I / O ERROR ON BLOCK
372	7160000031	0200000365 +	* DETACH24	SX6 JP	E*TMD DETACH20	TOO MANY DETACHES
373	76670	5160000000 X	* DTACH24A	SX6 SA6	B7 ERRNUM	FILE ADDRESS ERROR ERROR NUM
374	0200000000	X	* JP	JP	ERRPARM	
375	0100000000	X	* DETACH25	RJ	SYSERR	CONSISTANCY CHECKS: DDS PTR BLK PTR FOUND
376	0100000000	X	* DETACH26	RJ	SYSERR	DATA BLK OUT BUT ABR EXISTS
377	0100000000	X	* DETACH27	RJ	SYSERR	GLOBAL ATTACH WAS ZERO
400	0100000000	X	* DETACH28	RJ	SYSERR	MAP COUNT WAS ZERO
401	0100000000	X	* DETACH29	RJ	SYSERR	NON-EXITS BLK IN LOCAL DATA
			* *			END DETACH...END DETACH...END DETACH

ZEROMAP...ZEROMAP...ZEROMAP

ZERO MAP ENTRY

- NOTES:
- A) IF THE MAP ENTRY IS EMPY, NO ACTION IS TAKEN.
 - B) IF THE MAP ENTRY IS FOR A LOCALLY OPEN DISK FILE, ^DETACH^ IS CALLED FOR SECTION OF THE FILE IN THE MAP AND AND THEN THE MAP IS CLEARED.
 - C) IF THE FILE IS NOT A LOCALLY OPEN DISK FILE, THE CLEAR MAP ACTION IS PERFORMED.

ON ENTRY: B3 = PTR TO PARAMS:

- P0: SUBP NAME CAPABILITY
- P1: INDEX IN MAP
- P2: FILE CAP FOR MAP

B7 = RETURN LINK

ON EXIT: MAP ENTRY IS CLEARED

REGISTERS USED: ALL

ROUTINES CALLED: ^CONVERT^, ^DETACH^

TEMPORARIES USED: ZEROMAPR

402	56530	ZEROMAP	SA5	B3	INDEX OF SUBP CLASSCODE
	79670		SX6	B7	SAVE RETURN LINK
403	5160000000 X		SA4	B3+P1	INDEX OF MAP ENTRY
	5143000001		SA6	ZEROMAPR	
404	5160000000 X		SX6	ZEROMAP5	LOCAL ERROR HANDLING
	7160000461 +		SA6	PROCADR	
413	13666		DISPMAP	X5,X4,MAPBUF	DISPLAY MAP ENTRY
	5160000000 X		BX5	X6=X6	RESET ERROR HANDLING
			SA6	PROCADR	
414	5150000000 X		SA5	MAPBUF	UNIQUE NAME OF ECS FILE
	6170000426 +		SB7	ZEROMAP1	
415	0305000441 +		ZR	X5,ZEROMAP2	JP IF MAP ENTRY EMPTY
416	7160000000 X		SA4	B3+P2	CHECK MAP AGAINST USER
	5143000002		DISPCAP	X4	SUPPLIED FILE CAP
423	13657		BX6	X5=X7	
	0316000457 +		NZ	X6,ZEROMAP4	JP IF NO GOOD
424	0200000000 X		JP	CONVERT	^CONVERT^ LOCKS THE FILE
425	0200000443 +		JP	ZEROMAP3	RETURN VECTOR FROM CONVERT JP IF NO SUCH OPEN DISK FILE
426	5153000000	ZEROMAP1	SA5	B3+P0	CLEAR THE MAP ENTRY
	5143000001		SA4	B3+P1	INDEX OF MAP ENTRY

```

427 716000000 X          ZRMAP      X5,X4,FILECAP
*
436 5110000001 X        SA1          MAPBUF+1      FILE ADDRESS
      6170000441 +     SB7          ZEROMAP2
437 6160000001          SB6          1             INDICATE MAP DETACH
      5120000002 X     SA2          MAPBUF+2
440 73220              SX2          X2             WORD COUNT
      0200000243 +     JP           DETACH        DETACH UNLOCKS THE FILE
*
*
441 5150000000 X        ZEROMAP2   SA5          ZROMAPR      RETURN
      63650            SB6          X5
442 0260000000          JP           B6
*
*
443 56530              ZEROMAP3   SA5          B3
      5143000001       SA4          B3+P1
444 5133000002          SA3          B3+P2
      7160000461 +     SX6          ZEROMAP5
445 5160000000 X       SA6          PROCADR
      7160000000 X     ZRMAP       X5,X4,X3
454 13666              BX6          X6-X6
      5160000000 X     SA6          PROCADR
455 5150000000 X       SA5          ZROMAPR
      63650            SB6          X5
456 0260000000          JP           B6          RETURN
*
*
457 7160000005          ZEROMAP4   SX6          FILE PARAM NO GOOD
      5160000000 X     SA6          F.WRGFL      WRONG FILE
460 0200000000 X       JP           ERRNUM
      5160000000 X     SA6          ERRMAP
461 13666              ZEROMAP5   BX6          USER CAUSED ERROR...PASS IT ON
      5160000000 X     SA6          X6-X6
462 0200000000 X       JP           PROCADR
      5160000000 X     SA6          PASSERR
*
*
*
*
END ZEROMAP...END ZEROMAP

```

MKMAP...MKMAP...MKMAP

CHANGE MAP ENTRY

- NOTES:
- A) ↑ZEROMAP↑ IS CALLED TO CLEAR ANY EXISTING MAP ENTRY
 - B) IF THE FILE INVOLVED IN THE NEW ENTRY IS A DISK FILE, ↑ATTACH↑ IS CALLED TO GET ALL THE BLOCKS. SPECIAL RETURN FROM ↑ATTACH↑ INDICATES NOT ALL BLOCK EXIST
 - C) IF NOT ALL BLOCKS EXIST, BLOCKS UP TO THE POINT OF THE NON-EXISTANT BLOCK ARE PUT IN THE MAP
 - D) IF THE FILE IS NOT A LOCALLY OPEN DISK FILE, A DRES ECS CHANGE MAP ACTION IS DONE. THIS MAY RESULT IN AN OPTION ERROR OR OTHER ERROR.
 - E) RETURN IS EITHER TO ↑RETURN↑, ↑FRETURN↑, OR TO ERROR EXIT POINT

ON ENTRY: B1 = ADDR OF PARAMETERS
 P0: CLASS CODE OF SUBPROCESS
 P1: INDEX IN MAP
 P2: FILE CAPABILITY INDEX
 P3: FILE ADDR
 P4: CM ADDR
 P5: WORD COUNT
 P6: FILE CAP FOR EXISTING ENTRY
 P7: 0 = READ ONLY MAP

ON EXIT: MAP IS FIXED UP

REGISTERS USED: ALL

ROUTINES CALLED: ↑ZEROMAP↑, ↑ATTACH↑, ↑CONVERT↑

TEMPORARIES USED: CHMAPB1, CHMAPR

```

463 66310          76610
      5160000000 X
464 6170000467 +
      5141000006
      10644
      10755
465 5151000002
      54740
466 54650
      54740
    
```

```

CHMAP  SB3
        SX6
        SA6
        SB7
        SA4
        SA5
        BX6
        BX7
        SA6
        SA7
    
```

```

B1
B1
CHMAPB1
CHMAP1
B1+P6
B1+P2
X4
X5
A5
A4
    
```

```

DIR TO PARAMS
SAVE PARAM ADDR
INTERCHANGE OLD AND NEW
FILE CAPS FOR ↑ZEROMAP↑
    
```

```

0200000402 +
*
*
*
467 5150000000 X CHMAP1 SA5 CHMAPB1 RECOVER PARAMETER POINTER
    63350 SB3 X5
470 5255000006 6170000500 + SA5 X5+P6 INDEX OF FILE CAPABILITY
    SB7 CHMAP2
471 7160000000 X DISPCAP X5 X7 * ECS FILE UNIQUE NAME
476 0200000000 X JP CONVERT *CONVERT* LOCKS THE FILE
*
*
*
477 0200000552 + JP CHMAP8 RETURN VECTOR FOR CONVERT
    FILE NOT OPEN DISK FILE
*
*
*
500 5113000003 CHMAP2 SA1 B3+P3 ATTACH NECESSARY BLOCKS
    6160000001 SB6 1 MAP ATTACH FLAG
501 5123000005 SA2 B3+P5 WORD COUNT
    0302000617 + ZR X2,CHMAP14 JP IF ZERO WORD COUNT
502 6170000507 + SB7 CHMAP3
    7160000000 X SX6 RETURN
503 5160000000 X SA6 CHMAP8
    0200000030 + JP ATTACH
*
*
*
504 0200000622 + JP CHMAP20 RETURN VECTOR FOR ATTACH
505 0200000623 + JP CHMAP20A I/O ERROR (BAD TYPE)
506 0200000545 + JP CHMAP7 ERROR...GO DETACH BLKS
    MISSING BLOCK
*
*
*
507 5150000000 X CHMAP3 SA5 CHMAPB1 RECOVER PARAM ADDR
    5245000007 SA4 X5+P7 READ ONLY FLAG
510 63350 SB3 X5
    63740 SB7 X4
511 5143000004 5153000003 SA5 B3+P3 FILE ADDR
    SA4 B3+P4 CM ADDRESS
512 5123000001 5133000005 SA3 B3+P5 WORD COUNT
    SA2 B3+P1 MAP INDEX
513 7160000610 + SA1 B3+P0 SUBPROCESS NAME
    5160000000 X SX6 CHMAP11 ERROR PROC ADDR
514 0303000542 + SA6 PROCADR
    ZR X3,CHMAP6 SKIP IF ZERO WORD COUNT
*
*
*
    0570000530 + NE B7,B0,CHMAP5 JP IF READ WRITE MAP
*
*
*
515 7160000000 X INMAPRO X1,X2,FILECAP,(X5),X4,X3
527 0200000542 + JP CHMAP6
*
*
*
530 7160000000 X CHMAP5 INMAPRW X1,X2,FILECAP,(X5),X4,X3
*
*
*
542 13666 CHMAP6 BX6 X6-X6 CLEAR ERROR PROC ADDR
    5160000000 X SA6 PROCADR
543 5150000000 X SA5 CHMAPR RETURN
    63750 SB7 X5
544 0270000000 JP B7

```

```

*
*
*
*
*
545 7160000000 X          CHMAP7  SX6  FRETURN
546 5140000000 X          SA6    CHMAPR
5160000000 X          SA4    CHMAPB1
5254000003          SA5    X4+P3
547 37615                IX6    X1-X5
0326000551 *          PL     X6,CHMAP7A
550 7160000000          SX6    0
*
*
551 5264000005          CHMAP7A SA6   X4+P5
0200000507 *          JP    CHMAP3
*
*
*
*
*
552 5153000003          CHMAP8  SA5   B3+P3
5143000004          SA4   B3+P4
553 5133000005          SA3   B3+P5
5123000002          SA2   B3+P2
554 5113000001          SA1   B3+P1
10011              BX0   X1
555 5113000006          SA1   B3+P6
63710              SB7   X1
556 5113000000          SA1   B3+P0
7160000600 *          SX6   CHMAP10
557 5160000000 X          SA6   PROCADR
0570000573 *          NE    B7,B0,CHMAP9
*
*
*
560 7160000000 X          INMAPRO X1,X0,X2,(,X5),X4,X3
572 0200000542 *          JP    CHMAP6
*
*
573 7160000000 X          CHMAP9  INMAPRW X1,X0,X2,(,X5),X4,X3
605 0200000542 *          JP    CHMAP6
*
*
*
606 13666                CHMAP10 BX6   X6-X6
5160000000 X          SA6   PROCADR
607 0200000000 X          JP    PASSERR
*
*
*
*
*
610 13666                CHMAP11 BX6   X6-X6
5160000000 X          SA6   PROCADR
611 5140000000 X          SA4   FHRADDR
6160000613 *          SB6   CHMAP12
612 0200000000 X          JP    LOCK
*
*
613 5150000000 X          CHMAP12 SA5   CHMAPB1
5215000003          SA1   X5+P3

```

NOT ALL BLOCKS EXIST IN FILE OR ERROR
(X1 = ADDR OF MISSING BLOCK)

SET EXIT POINT
CHANGE WORD COUNT
FILE ADDR
NEW WORD COUNT
MISSING BLOCK ADDR MAY BE
LT. THAN START FILE ADDR
IF 1ST BLOCK MISSING

FILE NOT AN OPEN DISK FILE
TYR DIRECT MAP ACTION
FILE ADDRESS
CM ADDRESS
WORD COUNT
INDEX OF FILE CAPABILITY
INDEX IN MAP

READ ONLY FLAG

SUBPROCESS NAME
LOCAL ERROR PROCESSING

JP IF NOT READ ONLY ENTRY

ERROR ATTEMPTING TO MAKE MAP
MUST DETACH BLOCKS AND RETURN ERROR
(AP0 AND AP1 ARE ERROR
CLASS AND NUMBER)

RE-LOCK THE FILE

FILE ADDR FOR DETACH

614	5225000005		SA2	X5+P5	WORD COUNT FOR DETACH
615	6170000616	6160000001	SB6	I	MAP DETACH
		0200000243 *	SB7	CHMAP13	
			JP	DETACH	
616	0200000000 X		* CHMAP13	JP	PASSERR
			* *		ZERO WORD COUNT FOR MAP IS ERROR
617	7160000000		CHMAP14	SX6	E.NEGPAR
		7170000005	SX7	SX7	5TH PARAM AT FAULT
620	20722		LX7	E 18	
	12667		BX6	X6*X7	
		5160000000 X	SA6	ERRNUM	
621	6160000000 X		SB6	ERRPAM	
		0200000000 X	JP	UNLOCK	
			* * * * *		I/O ERROR DURING ATTACHES...MUST DETACH BLOCKS X1 = ADDR OF 1ST BLK NOT ATTACHED ↑ERRNUM↑ IS SET
622	7160000000 X		CHMAP20	SX6	ERRFILE
		5160000000 X	SA6	SA6	ERRCLAS
			* *		ERROR DURING ATTACHES...DETACH THE BLOCKS
623	5140000000 X		CHMAP20A	SA4	CHMAPB1
		63340	SB3	SB3	X4
			* *		
624	5153000003		SA5	B3+P3	STARTING FILE ADDRESS
		37215	IX2	X1-X5	ACTUAL WORD COUNT
625	0302000632 *		ZR	X2,CHMAP21	SKIP IF NO BLOCKS ATTACHED
		0332000632 *	NG	X2,CHMAP21	
626	10155		BX1	X5	
		5140000000 X	SA4	FHRADDR	
627	6160000630 *		CALLX	LOCK#86	RE-LOCK FILE
630	6160000001		SB6	I	MAP DETACH FLAG
		6170000632 *	SB7	CHMAP21	
631	0200000243 *		JP	DETACH	
			* *		
632	5150000000 X		CHMAP21	SA5	ERRCLAS
		63750	SB7	SB7	FILE UNLOCKED BY DETACH
633	0270000000		JP	JP	

END CHMAP...END CHMAP

MAKE NEW MAP ENTRY

ON ENTRY: B1 = ADDR OF PARAMS
P0: CLASS CODE OF SUBP
P1: INDEX IN MPA
P2: FILE CAP INDEX
P3: FILE ADDRESS
P4: CM ADDRESS
P5: WORD COUNT
P6: NOT USED
P7: =0 FOR READ ONLY ENTRY

634	76610 5160000000 X	MAKEMAP	SX6 SA6	B1 CHMAPB1	SAVE PARAM POINTER
635	5151000002 10655		SA5 BX6	B1+P2 X5	MOVE FILE CAP DOWN FOR CHMAP
636	5161000006		SA6	B1+P6	
637	5141000001 56510		SA5 SA4	B1 B1+P1	SUBP CAP INDEX MAP INDEX
640	5160000000 X 7160000461 +		SX6 SA6	ZEROMAPS BROCADR	LOCAL ERROR PROCESSING
647	13666 7160000000 X 5160000000 X		DISPMAP BX6 SA6	X5,X4,MAPBUF X6-X6 BROCADR	REST ERROR ADDRESS
650	5150000000 X 0305000467 +		SA5 ZR	MAPBUF X5,CHMAP1	CHECK FOR EMPTY ENTRY OK, LET CHMAP FINISH UP AND DO A RETURN OR F-RETURN OR ERROR
651	7160000004 5160000000 X		SX6 SA6	F.PRENT ERRNUM	MAP ENTRY NOT EMPTY
652	0200000000 X		JP	FRRMAP	
652		SYMBOLS	XTEXT		
653			END		

44654

STORAGE USED
6600 ASSEMBLY

4131 STATEMENTS
26,566 SECONDS

821 SYMBOLS
602 REFERENCES

00005 INVENTED SYMBOLS

ATTACH / DETACH / MAPS
SYMBOLIC REFERENCE TABLE.

APTIPL	0	EXTERNAL*							
AP0	0	EXTERNAL*							
AP1	0	EXTERNAL*	4/08						
AP2	0	EXTERNAL*	4/14						
AP3	0	EXTERNAL*	4/15						
AP4	0	EXTERNAL*							
AP5	0	EXTERNAL*							
AP6	0	EXTERNAL*							
AP7	0	EXTERNAL*							
AP8	0	EXTERNAL*							
ATACHR1	0	EXTERNAL*	6/10 S	14/38					
ATACH11A	114	PROGRAM*	9/07	9/09	9/12 L				
ATACH16A	135	PROGRAM*	10/43	10/48 L					
ATACH19A	161	PROGRAM*	12/14	12/16 L					
ATACH19B	162	PROGRAM*	12/09	12/20 L					
ATACH29A	206	PROGRAM*	14/26	14/38 L					
ATCHBLK	0	PROGRAM*	4/06 E	4/08 L					
ATCHBLK1	7	PROGRAM*	4/10	4/14 L					
ATCHBLK2	15	PROGRAM*	4/17	4/24 L					
ATCHBLK3	17	PROGRAM*	4/23	4/29 L					
ATCHBLK4	21	PROGRAM*	4/22	4/34 L					
ATCHBLK5	24	PROGRAM*	4/13	4/40 L					
ATCHBLK6	26	PROGRAM*	4/21	4/45 L					
ATTACH	30	PROGRAM*	4/18	6/07 L	28/22				
ATTACKR	0	EXTERNAL*	6/09 S	9/17	12/47	13/02	14/40 S	16/53	17/22
ATTACH1	40	PROGRAM*	6/15	6/27 L					
ATTACH10	107	PROGRAM*	8/27 L	11/21					
ATTACH11	112	PROGRAM*	9/06 L	12/50	14/41	17/03	17/25		
ATTACH14	115	PROGRAM*	9/12	9/17 L	15/09	15/19			
ATTACH15	117	PROGRAM*	6/49	10/06 L					
ATTACH16	121	PROGRAM*	10/10 L	10/16					
ATTACH17	121	PROGRAM*	10/13	11/09 L					
ATTACH18	123	PROGRAM*	11/12	11/14 L					
ATTACH19	150	PROGRAM*	6/46	12/08 L					
ATTACH20	164	PROGRAM*	12/22	12/26 L					
ATTACH21	169	PROGRAM*	6/44	12/34 L					
ATTACH24	170	PROGRAM*	12/35	12/41 L					
ATTACH25	171	PROGRAM*	6/45	6/47	12/47 L				
ATTACH26	173	PROGRAM*	6/23	13/02 L					
ATTACH27	175	PROGRAM*	7/42	9/10	12/15	12/30	14/08 L	14/20	14/33
ATTACH28	200	PROGRAM*	14/11	14/20 L					
ATTACH29	205	PROGRAM*	14/09	14/35 L					
ATTACH30	210	PROGRAM*	6/21	15/07 L					
ATTACH33	215	PROGRAM*	14/24	16/06 L					
ATTACH34	216	PROGRAM*	7/02	10/23	16/08 L				
ATTACH36	217	PROGRAM*	11/15	11/18	16/11 L				
ATTACH37	220	PROGRAM*	10/35	16/14 L					
ATTACH38	221	PROGRAM*	6/19	16/19 L					
ATTACH39	223	PROGRAM*	7/17	10/46	16/39 L				
ATTACH4	42	PROGRAM*	6/36 L	8/33	12/26	12/37	12/41		
ATTACH40	224	PROGRAM*	6/43	12/29	16/44 L				
ATTACH41	225	PROGRAM*	16/09	16/12	16/15	16/47 L			
ATTACH42	232	PROGRAM*	15/17	17/07 L					

ATTACH / DETACH / MAPS
SYMBOLIC REFERENCE TABLE.

CREBLKR	0	EXTERNAL*							
CRELFH	0	EXTERNAL*							
CREPTRR	0	EXTERNAL*							
CTEMP	0	EXTERNAL*							
DARADDR	0	EXTERNAL*							
DARHASH	0	EXTERNAL*							
DARSPA	0	EXTERNAL*	7/15	10/44	20/34				
DATIPI	0	EXTERNAL*							
DATMAP	0	EXTERNAL*							
DBR	0	EXTERNAL*	7/32						
DBUG1	0	EXTERNAL*							
DBUG2	0	EXTERNAL*							
DBW	0	EXTERNAL*	22/44						
DDRSP	0	EXTERNAL*							
DDSIPL	0	EXTERNAL*	10/53 S	10/53 S	10/53	22/02 S	22/02 S	22/21 S	
			10/53 S	10/53 S	22/02 S	22/02 S	22/02	22/21	
			6/39						
DECODE	0	EXTERNAL*							
DELBLK	0	EXTERNAL*							
DELBLKR	0	EXTERNAL*							
DELHASH	0	EXTERNAL*							
DENTRY	0	EXTERNAL*							
DETACH	243	PROGRAM*	18/47 L	26/08	30/04	30/38			
DETACHR	0	EXTERNAL*	18/49 S	20/38	23/13	23/50 S			
DETACH1	252	PROGRAM*	18/52	19/09 L					
DETACH10	279	PROGRAM*	20/23 L	23/51					
DETACH11	276	PROGRAM*	20/23	20/26 L					
DETACH12	309	PROGRAM*	20/30	20/33	20/38 L	23/22	23/36		
DETACH13	305	PROGRAM*	20/07	21/08 L					
DETACH14	312	PROGRAM*	21/16	21/26 L					
DETACH15	314	PROGRAM*	21/24	21/37 L					
DETACH16	350	PROGRAM*	22/18	22/41 L					
DETACH17	352	PROGRAM*	22/43	22/46 L					
DETACH18	354	PROGRAM*	22/05	23/01 L					
DETACH19	356	PROGRAM*	19/06	23/13 L					
DETACH2	254	PROGRAM*	19/17 L	20/18					
DETACH20	365	PROGRAM*	23/45 L	24/03	24/07	24/11			
DETACH22	370	PROGRAM*	19/24	24/02 L					
DETACH23	371	PROGRAM*	22/46	24/06 L					
DETACH24	372	PROGRAM*	19/53	24/10 L					
DETACH25	375	PROGRAM*	22/03	22/24	24/22 L				
DETACH26	376	PROGRAM*	24/24 L						
DETACH27	377	PROGRAM*	22/11	24/25 L					
DETACH28	400	PROGRAM*	19/45	23/30	24/26 L				
DETACH29	401	PROGRAM*	23/05	24/27 L					
DETACH3	256	PROGRAM*	19/23 L	19/32					
DETACH6	262	PROGRAM*	19/30	19/39 L					
DETACH7	266	PROGRAM*	19/42	19/51 L					
DETACH8	270	PROGRAM*	19/48	20/05 L					
DETACH9	272	PROGRAM*	20/12 L	22/21	22/47				
DISKENT	0	EXTERNAL*							
DISKERR	0	EXTERNAL*							
DISKINT	0	EXTERNAL*							
DORESPR	0	EXTERNAL*							

ATTACH / DETACH / MAPS
SYMBOLIC REFERENCE TABLE.

COMPASS - VER 2.

00/00/00 00.37.19.

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DSKLCK	0	EXTERNAL*							
DSPTR	0	EXTERNAL*							
DSWPTIM	0	EXTERNAL*							
DSYSTIM	0	EXTERNAL*							
DTACH15B	321	PROGRAM*	22/01 L	23/07					
DTACH15C	341	PROGRAM*	22/20 L	22/30					
DTACH15D	345	PROGRAM*	22/07	22/23 L					
DTACH19A	360	PROGRAM*	19/05	23/21 L					
DTACH24A	373	PROGRAM*	19/03	24/14 L					
DUSRTIM	0	EXTERNAL*							
D.ENTRY	0	EXTERNAL*							
D.FNAME	0	EXTERNAL*							
ECLOSE	0	EXTERNAL*							
EC:DSAM	0	EXTERNAL*	25/35	31/29					
EC:DSCP	0	EXTERNAL*	4/10	25/44	28/10				
EC:MMRO	0	EXTERNAL*	28/45	29/33					
EC:MMRW	0	EXTERNAL*	28/48	29/36					
EC:ZRM	0	EXTERNAL*	26/02	26/25					
ENTER	0	EXTERNAL*							
ERRADDR	0	EXTERNAL*							
ERRALOC	0	EXTERNAL*	17/20						
ERRCLAS	0	EXTERNAL*	4/36	16/52 S	17/21 S	30/23 S	30/40		
ERRFILE	0	EXTERNAL*	4/42	4/47	16/51	17/09	23/49	30/22	
ERRMAP	0	EXTERNAL*	26/34	31/39					
ERRNUM	0	EXTERNAL*	4/41 S	16/20 S	17/08 S	23/48 S	26/33 S	31/38 S	
			14/32 S	16/50 S	17/19 S	24/15 S	30/13 S		
ERRPACK	0	EXTERNAL*							
ERRPARG	0	EXTERNAL*	16/21	24/16	30/14				
EVCHSZ	10	EXTERNAL*	7/39						
EXCLAIM	0	EXTERNAL*							
E.DIOERR	27	EXTERNAL*	16/44	24/06					
E.NABR	26	EXTERNAL*	16/08						
E.NATH	32	EXTERNAL*	24/02						
E.NEGPAR	0	EXTERNAL*	30/09						
E.NODDS	25	EXTERNAL*	17/15						
E.NODFIL	25	EXTERNAL*	4/40						
E.NOSWP	3	EXTERNAL*	16/39						
E.PRENT	4	EXTERNAL*	31/37						
E.TMA	30	EXTERNAL*	16/11	17/07					
E.TMD	31	EXTERNAL*	24/10						
E.TMGA	42	EXTERNAL*	16/14						
E.WRGFL	5	EXTERNAL*	26/32						
FB.FUND	0	EXTERNAL*							
FB.LEN	0	EXTERNAL*							
FB.NAME	0	EXTERNAL*							
FB.SHAP	0	EXTERNAL*							
FB.WD3	0	EXTERNAL*							
FDSKDAT	0	EXTERNAL*							
FDSKHDR	0	EXTERNAL*							
FDSKPTR	0	EXTERNAL*							
FHB	0	EXTERNAL*							
FHR	0	EXTERNAL*							
FHRADDR	0	EXTERNAL*	6/36	29/48	30/34				

ATTACH / DETACH / MAPS
SYMBOLIC REFERENCE TABLE.

FHRHASH	0	EXTERNAL*			
FILCL	0	EXTERNAL*			
FILEADR	0	EXTERNAL*			
FILECAP	0	EXTERNAL*	26/02	28/45	28/48
FLOLEN	0	EXTERNAL*			
FREEDSK	0	EXTERNAL*			
FRETURN	0	EXTERNAL*	4/31	29/05	
FRW	0	EXTERNAL*			
FRWENT	0	EXTERNAL*			
FRWERR	0	EXTERNAL*			
FRWINT	0	EXTERNAL*			
FR.CAPX	0	EXTERNAL*			
FR.CLAM	0	EXTERNAL*			
FR.DAR	0	EXTERNAL*			
FR.OBSZ	0	EXTERNAL*			
FR.FLAG	0	EXTERNAL*			
FR.FROZ	0	EXTERNAL*			
FR.FUND	0	EXTERNAL*			
FR.LEN	0	EXTERNAL*			
FR.LOCK	0	EXTERNAL*			
FR.MEMB	0	EXTERNAL*			
FR.NAME	0	EXTERNAL*			
FR.ONEL	0	EXTERNAL*			
FR.OPEN	0	EXTERNAL*			
FR.ROOT	0	EXTERNAL*			
FR.SHAP	0	EXTERNAL*			
FR.SIZE	0	EXTERNAL*			
FR.SUSP	0	EXTERNAL*			
FR.WD1	0	EXTERNAL*			
FR.WD2	0	EXTERNAL*			
FR.WD3	0	EXTERNAL*			
FR.WRIT	0	EXTERNAL*			
GDSKDAT	0	EXTERNAL*			
GDSKHOR	0	EXTERNAL*			
GDSKPTR	0	EXTERNAL*			
GETOSK	0	EXTERNAL*			
GETRESP	0	EXTERNAL*	14/13		
GFILE	0	EXTERNAL*			
GF.APTF	0	EXTERNAL*			
GF.APTL	0	EXTERNAL*			
GF.DATF	0	EXTERNAL*			
GF.DATL	0	EXTERNAL*			
GF.OOSF	0	EXTERNAL*	10/53	22/02	
GF.OOSL	0	EXTERNAL*	10/53	22/02	
GF.HSHF	0	EXTERNAL*			
GF.HSHL	0	EXTERNAL*			
GF.IOTF	0	EXTERNAL*			
GF.IOTL	0	EXTERNAL*			
GF.LEN	0	EXTERNAL*			
GF.SUSF	0	EXTERNAL*			
GF.SUSL	0	EXTERNAL*			
GF.TRVF	0	EXTERNAL*			
HASH	0	EXTERNAL*			

ATTACH / DETACH / MAPS
SYMBOLIC REFERENCE TABLE.

M.CLTIM	0	EXTERNAL*
M.DARL	0	EXTERNAL*
M.DDREQ	0	EXTERNAL*
M.DDRSP	0	EXTERNAL*
M.DDSCT	0	EXTERNAL*
M.DFILT	0	EXTERNAL*
M.DOBJJ	0	EXTERNAL*
M.EMPTY	0	EXTERNAL*
M.FCLEV	0	EXTERNAL*
M.FDISK	0	EXTERNAL*
M.FHRL	0	EXTERNAL*
M.FILCL	0	EXTERNAL*
M.FRWCC	0	EXTERNAL*
M.GFILE	0	EXTERNAL*
M.HASHL	0	EXTERNAL*
M.HELP	0	EXTERNAL*
M.HFILE	0	EXTERNAL*
M.IOCTR	0	EXTERNAL*
M.LOCKS	0	EXTERNAL*
M.MKCAP	0	EXTERNAL*
M.OPCL	0	EXTERNAL*
M.RBUFS	0	EXTERNAL*
M.RETRY	0	EXTERNAL*
M.SDISK	0	EXTERNAL*
M.SLOTS	0	EXTERNAL*
M.SWAB	0	EXTERNAL*
M.TRMCC	0	EXTERNAL*
M.TRYCC	0	EXTERNAL*
M.TVRES	0	EXTERNAL*
M.TWAIT	0	EXTERNAL*
M.UNAME	0	EXTERNAL*
M.USCTR	0	EXTERNAL*
M.USRCC	0	EXTERNAL*
M.WBUFS	0	EXTERNAL*
M.10SEC	0	EXTERNAL*
NLOCKS	0	EXTERNAL*
NOBJS	0	EXTERNAL*
NOQLOCK	0	EXTERNAL*
NUMRESP	0	EXTERNAL*
OPEN	0	EXTERNAL*
OPENDAR	0	EXTERNAL*
OPENR	0	EXTERNAL*
OPERCL	0	EXTERNAL*
OP:::CL	0	EXTERNAL*
ORGADDR	0	EXTERNAL*
ORGCLST	0	EXTERNAL*
ORGMAP	0	EXTERNAL*
PAGESW	0	EXTERNAL*
PASSERR	0	EXTERNAL*
PBR	0	EXTERNAL*
PBW	0	EXTERNAL*
PG.DDS	0	EXTERNAL*

3/09						
3/09	D	25/34	26/01	28/09	28/47	29/35
4/09		25/43	26/24	28/44	29/32	31/28

26/39	29/41	30/06
12/24		

TABADDR	0	EXTERNAL*							
TEMPA	0	EXTERNAL*							
TEMPB	0	EXTERNAL*							
TEMPC	0	EXTERNAL*							
TEMPO	0	EXTERNAL*	6/11 S	7/34	11/09	18/50 S	23/21		
TEMP1	0	EXTERNAL*	7/19	8/02	15/07	19/39			
TEMP10	0	EXTERNAL*	6/28 S	7/09	8/27	10/38	19/12 S	20/13	21/47
TEMP11	0	EXTERNAL*							
TEMP2	0	EXTERNAL*	6/29 S	8/28	20/12				
TEMP3	0	EXTERNAL*	7/06 S	7/22	19/11 S	20/26	21/49		
TEMP4	0	EXTERNAL*	7/04 S	7/21	7/44	10/26 S	10/48		
TEMP5	0	EXTERNAL*	10/31 S	10/53	22/02	22/02			
TEMP6	0	EXTERNAL*	6/13 S	7/36	9/06	12/08	12/34	14/08	
TEMP7	0	EXTERNAL*							
TEMP8	0	EXTERNAL*							
TEMP9	0	EXTERNAL*							
TERMR0F	0	EXTERNAL*							
TERMRWF	0	EXTERNAL*							
TERMRWL	0	EXTERNAL*							
TR. ORIV	0	EXTERNAL*							
TR. LEVL	0	EXTERNAL*							
UDSKSCR	0	EXTERNAL*							
UNLOCK	0	EXTERNAL*	19/13	13/05	20/24	23/15	30/15		
UNLOCKW	0	EXTERNAL*	12/22	23/08					
USERRWF	0	EXTERNAL*							
USERRWL	0	EXTERNAL*							
USRPACK	0	EXTERNAL*	4/25 S	4/30 S	4/35 S	4/46 S			
WRITCAP	0	EXTERNAL*	10/32	22/20					
ZEROMAP	402	PROGRAM*	23/28 L	28/01					
ZEROMAP1	426	PROGRAM*	25/59	25/52 L					
ZEROMAP2	441	PROGRAM*	25/40	26/04	26/14 L				
ZEROMAP3	446	PROGRAM*	25/50	26/19 L					
ZEROMAP4	457	PROGRAM*	25/45	26/32 L					
ZEROMAP5	461	PROGRAM*	25/22	26/22	26/37 L	31/26			
ZROMAPR	0	EXTERNAL*	25/31 S	26/14	26/27				

END OF FILE

