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EXTERNAL SYMBOLS:

- DDSIPL
- WRITCAP
- MYSNECS
- DASSPC
- M,SWAB
- DUNLOCK
- OBERCL
- GF,DDSFA
- DARADDR
- DAR
- DASPEND
- SYSAB
- PROCADR
- IFLIST
- GF,DDSL
- TEMPY
- DASLEN
- MAINCL
- USERAB
- SYSPR
- ECIOBR
- READCAP
- MYCONC
- DASFILS
- M,MSTAB
- DLOCK
- TEMPZ
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**EXT**
- DSIPL, OF, DDSF, OF, DDCR, READCAP, WRITCAP
- DASPL, DASFL, DASPL, DASSPAC, DASPEND
- MAINCL, M, MSTAB, M, MVAR
- SYSAB, USERAB
- LOCK, DUNLOCK, PROCADR, SYSERR, TEMPZ

**MACSET**
- OPERCL, IPLIST, ECS
DARSPA ** INTERNAL DISK SYSTEM ACCOUNTING

ENTRY DARSPA

DARSPA ** INTERNAL DISK SYSTEM ACCOUNTING INTERFACE, CALLED BY VARIOUS
PARTS OF DISK SYSTEM TO ACCOUNT FOR RESOURCES USED TO
SERVICE THE VARIOUS USER CALS.

ON ENTRY:
R3 = DDS ADDRESS OF THE RESPONSIBLE DAP
R4 = COMMODITY CODE IDENTIFYING THE RESOURCE
      BEING ALLOCATED/FREED
R5 = AMOUNT (POS FOR ALLOCATING RESOURCE; NEG FOR FREING RESOURCE)
R6 = RETURN LINK, POSSIBLY MODIFIED

RETURNS TO
CASE
B4 = NORMAL
B4 = INSUFFICIENT FUNDS
B6 = USER AB CAP HAS GONE BAD

GUARANTEED NOT TO TOUCH: B1,B2,X2,B5,B7,DARADDR

* CHECK FOR BAD COMMODITY CODE

0  0640000001  0100000000
DARSPA  PJ  B4,DARSPA  SYSSRR  COMMODITY CODE NEGATIVE
1  7144777771  0330000003
DARSPA1 SX4  R4,DARJPS  SYSPRS
2  0100000000
DARSPA1 NX4  V4,DARSPA2
3  0240000004
DARSPA3 JP  R4,DARJTAB  JUMP THROUGH TABLE

* DARSPA JUMP TABLE (INDEXED BY COMMODITY CODE)

4  0200000012  0200000012  DARSPA3  BSS  1
5  0260000000  0260000000  DARSPA3  B6  (DARFECS)  0
6  0200000051  0200000051  DARSPA3  B6  (DARDISK)  0
7  0200000056  0200000056  DARSPA3  B6  (DARFILE)  0
10  0260000000  0260000000  DARSPA3  B6  (DARFECS)  0
11  0200000064  0200000064  DARSPA3  B6  (DARDISK)  0
12  0200000069  0200000069  DARSPA3  B6  (DARFILE)  0
6  020000006A  020000006A  DARSPA3  BSS  1

* NOT ATOMIC JUMP TO TABLE
DARSPA • INTERNAL DISK SYSTEM ACCOUNTING
ACCOUNT FOR ECS (FIXED OR SWAPPED)

**COMMODITY = SWAPPED ECS**

**DARSECS** S83
**CALLX** USEMORE=84
**JP** R6=1
**JP** DARSECS

**COMMODITY = FIXED ECS** • MOVE THE SPACE BETWEEN THE LOCAL USER
ALLOCATION BLOCK AND THE DISK SYSTEM SWAPPED
ECS ALLOCATION BLOCK.

**NOTE:**
- MASTER ALLOC BLK PRESENTED AS AUTHORITY TO GRAB.
  - IF USER AB CAP HAS GONE BAD, SPECIAL RETURN TO
    CALLER OF DARSPA CAUSES CLEANUP AND ERROR RETURN
    TO CALLER OF DISKSYS.
- SYSTEM ALLOCATION BLOCK AND MASTER ALLOCATION
  BLOCK DUE TO FATHER-SON RESTRICTIONS ON MOVE.

**DARFECs** NG
**GRABECs** (USERAB, (MAINCL+M+SWAB), (MAINCL+M+MSTAB), B8+B6-1)
**JP** DARFEC3

**DARFEC3** GRABEC3 (MAINCL+M+SWAB), USERAB, (MAINCL+M+MSTAB), B8+FRET
**ID** D8
**IX** 6
**SA4** 3
**SA4** 44

**DARSECS1**

**SA4** MYSW ECS + SD: RES
**BX6** X4
**AX6** 3
**MX7** 30
**BX6** X7'X6
**IX6** X4+X6
**SA6** A4

**GET SCHEDULER APPROVAL**
DARSPA  INTERNAL DISK SYSTEM ACCOUNTING
ACCOUNT FOR DISK SPACE, FILES, IODS BLOCKS, PENDING ACTI

* COMMODITY = DISK SPACE  ADJUST OCCUPIED FIELD IN DAR
  51  61400000062 + DARDISK CALLX  GRABDAR+BA  GET DAR
  52  61300000000 X  SB3  DASSPACE  ADDRESS OF SPACE DESCRIPTOR
  53  61400000054 + CALLX  USEMORE+BA
  54  6166777776 SB4  BS-1  INSUFFICIENT-FUNDS RETURN
  55  66460 CALLX  FREEDAR+BA,B6  RELEASE DAR

* COMMODITY = FILE  - ADJUST FILE COUNTER
  56  61400000067 + DARFILE CALLX  GRABDAR+BA  FILE COUNTER
  57  61400000000 X  SA4  NASFILS  ADJUST COUNTER
  58  03260000061 + SX6  Y6*BS
  59  010000000 x
  60  43752 11474 54460 01-18  CALLX  FREEDAR+BA,B6

* COMMODITY = PENDING ACTION
  62  56460 DARPEND CALLX  GRABDAR+BA
  63  01000000000 X  SA4  DASPEND
  64  61400000065 + SX6  BS
  65  61400000000 X  LX6  10
  66  35646 20636 1X6  14+X6
  67  54460 6A460 4A

* CALLX  FREEDAR+BA,B6

COMMAND = DISK SPACE  ADJUST OCCUPIED FIELD IN DAR
COMMAND = FILE  - ADJUST FILE COUNTER
COMMAND = PENDING ACTION
**GRAB THE DAR**

- ON ENTRY: R3 = DAR ADDR
- R4 = RETURN LINK
- Saves old contents of DARADDR

70 514000000000 X 1674
71 517000000000 X 76740
72 517000000000 X 66340
73 61600000074 +
74 66630 0240000000

**FREE THE DAR**

- ON ENTRY: DAR IS IN AND LOCKED
- R4 = RETURN LINK
- Restore old DARADDR saved by GRABDR

75 66360
76 66630
77 515000000000 X 10655
100 516000000000 X 0245000000
DARSPA ** INTERNAL DISK SYSTEM ACCOUNTING
SUBROUTINES

ADJUST AMOUNT OF SPACE IN-USE IN SPACE DESCRIPTOR

ON ENTRY** R3 = ADDR OF SPACE DESCRIPTOR
R4 = RETURN LINK
R5 = SPACE INCREMENT
R6 = REQUIRED EXCESS SPACE

ON EXIT**RETURNS TO R4+1 IF DESCRIPTOR ADJUSTED ON
R4 IF IN-USE WOULD HAVE EXCEEDED RESERVED

101  76350
     5143000000
     36643

102  10766
     20736

103  0327000104 + 0940000000

104  54640
     0240000001

105  0100000000  

     43577

     STORAGE USED
     6600 ASSEMBLY

     376 STATEMENTS
     7,633 SECONDS

     61 SYMBOLS
     90 REFERENCES

106
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14.25.38.51 SCOPE CPU = 6.720 SEC
14.25.38.51 SCOPE EDC = 6.660 SEC
14.25.38.51 SCOPE SWAP = 79.053 SEC
14.25.39.51 DISK CPU = 8.487 SEC
14.25.39.51 DISK EDC = 10.758 SEC
14.25.39.51 DISK SWAP = 1.336 SEC
14.25.39.51 SYSTEXT = 1854 LINES

14.28.22, 1867 LINES PRINTED BY PRINTER DRIVER ON LP 2"