



```

CCCCCCCC  SSSSSSSS  PPPPPPPP  CCCCCCCC  JJ  FFFFFFFF  RRRRRRRR  EEEEEEEEE  SSSSSSSS
CCCCCCCC  SSSSSSSS  PPPPPPPP  CCCCCCCC  JJ  FFFFFFFF  RRRRRRRR  EEEEEEEEE  SSSSSSSS
CC         SS        PP        PP        CC         JJ  FF        RR        RR        SS
CC         SS        PP        PP        CC         JJ  FF        RR        RR        SS
CC         SS        PP        PP        CC         JJ  FF        RR        RR        SS
CC         SS        PP        PP        CC         JJ  FF        RR        RR        SS
CC         SSSSSS    PPPPPPPP  CC         JJ  FFFFFFFF  RRRRRRRR  EEEEEEEEE  SSSSSSS
CC         SSSSSS    PPPPPPPP  CC         JJ  FFFFFFFF  RRRRRRRR  EEEEEEEEE  SSSSSSS
CC         SS        PP        PP        CC         JJ  FF        RR        RR        SS
CC         SS        PP        PP        CC         JJ  FF        RR        RR        SS
CC         SS        PP        PP        CC         JJ  FF        RR        RR        SS
CCCCCCCC  SSSSSSSS  PP        PP        CCCCCCCC  JJJJJJ  FF        RR        RR        SS
CCCCCCCC  SSSSSSSS  PP        PP        CCCCCCCC  JJJJJJ  FF        RR        RR        SS

```

```

LL         IIIIII  SSSSSSSS
LL         IIIIII  SSSSSSSS
LL         II      SS
LL         II      SS
LL         II      SS
LL         II      SS
LL         II      SSSSSS
LL         II      SSSSSS
LL         II      SS
LL         II      SS
LL         II      SS
LLLLLLLLLL IIIIII  SSSSSSSS
LLLLLLLLLL IIIIII  SSSSSSSS

```

CSPC  
VAX-  
Pse  
Cros  
Ass  
  
The  
163  
The  
162  
11  
  
Mac  
---  
\$2  
- \$2  
- \$2  
TOT  
363  
The  
MAC

```

0000 1      .TITLE  CSPCJFRES
0000 2      .IDENT  'V04-000'
0000 3
0000 4      :*****
0000 5      :*
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0000 23     :*
0000 24     :*
0000 25     :*****
0000 26
0000 27     ++
0000 28
0000 29     FACILITY:      Common Journaling Facility, Cluster Server Process
0000 30
0000 31     ABSTRACT:      Routine running in the CSP acting on behalf of CJF to
0000 32     :               resume the cluster failover sequence following the remastering
0000 33     :               of Recovery Unit Journals.
0000 34
0000 35     AUTHOR:        Paul R. Beck
0000 36
0000 37     DATE:          9-SEP-1983 17:00          Last Edit: 9-SEP-1983 20:15:46
0000 38
0000 39     MODIFIED BY:
0000 40
0000 41     V03-001 ADE0001      Alan D. Eldridge          6-Feb-1984
0000 42     Minor cleanup.
0000 43
0000 44
0000 45     --

```

```

0000 47 :
0000 48 : Symbol Definitions
0000 49 :
0000 50 :
0000 51 : $CLUBDEF
0000 52 : $IPLDEF
0000 53 :
0000 54 :
0000 55 : This code must run at elevated IPL, so it gets locked down.
0000 56 :
00000000 57 .PSECT CJF$CSP_CODE EXE,WRT
0000 58 :
0000 59 :
0000 60 :
0000 61 : The following two locations are filled in from CSP$CJFREMASTER by the
0000 62 : MOST RECENT CALL to that routine.
0000 63 :
0000 64 LOCK:
00000000 0000 65 FAILOVER_ID:: .LONG 0 ; lock page from here to SYNCH
00000000 0004 66 RESUME_ADDRESS:: .LONG 0 ; most recent failover ID
0008 67 ; address to call to resume
0008 68 ; failover sequence
0000 69 .ENTRY CJF$RESUME_FAILOVER,^M<>
000A 70 :
000A 71 :
000A 72 : Get the address of the cluster failover control block
000A 73 :
000A 74 :
50 00000000'GF D0 000A 75 MOVL G^CLUS$GL CLUB,RO ; First, get the cluster block
50 0000010C'EF 9E 0011 76 MOVAB CLUB$B_CCUFCB,RO ; ...which contains the failover blo
0018 77 :
0018 78 :
0018 79 : Synchronize, then just quit if it's the wrong failover sequence.
0018 80 : In that case, we expect to be called again with the correct one.
0018 81 :
0018 82 :
0018 83 SETIPL SYNCH ; synchronize with cluster code
1C A0 DE AF D1 001F 84 Cmpl FAILOVER_ID,CLUFCB$L_ID(RO) ; is this the correct failover?
03 12 0024 85 BNEQ 20$ ; if NEQ, no: we're done.
0026 86 :
0026 87 :
0026 88 : Restart the failover sequence. The return will also be at
0026 89 : IPL$SYNCH, after some unknown amount of failover code is executed.
0026 90 : That is, eventually, failover code will fork, at which point, we
0026 91 : get control again.
0026 92 :
0026 93 :
DB BF 16 0026 94 JSB @RESUME_ADDRESS ; resume failover sequence
0029 95 20$:
0029 96 :
0029 97 : That's it.
0029 98 :
0029 99 :
0029 100 SETIPL #0 ; back to normal IPL
04 002C 101 RET ; return to caller
002D 102 :
00000008 002D 103 SYNCH: .LONG IPL$SYNCH

```

0031 104  
0031 105  
0031 106  
0031 107 .END

ASSUME <SYNCH - LOCK> LT 512

.....

```
CJFSRESUME FAILOVER      00000008 RG 02
CLUSGL_CLUB              ***** X 02
CLUB$B-CLUFCB           = 0000010C
CLUFCB$ID                 = 0000001C
FAILOVER-ID              00000000 RG 02
IPL$_SYNCH               = 00000008
LOCK                      00000000 R 02
PRS IPL                   ***** X 02
RESUME_ADDRESS           00000004 RG 02
SYNCH                     0000002D R 02
```

-----  
! Psect synopsis !  
-----

| PSECT name    | Allocation      | PSECT No. | Attributes  |
|---------------|-----------------|-----------|---|
| . ABS         | 00000000 ( 0.)  | 00 ( 0.)  | NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE |
| \$AB\$\$      | 00000000 ( 0.)  | 01 ( 1.)  | NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE       |
| CJF\$CSP_CODE | 00000031 ( 49.) | 02 ( 2.)  | NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC BYTE       |

-----  
! Performance indicators !  
-----

| Phase                  | Page faults | CPU Time    | Elapsed Time |
|------------------------|-------------|-------------|--------------|
| Initialization         | 36          | 00:00:00.02 | 00:00:02.05  |
| Command processing     | 143         | 00:00:00.49 | 00:00:02.14  |
| Pass 1                 | 160         | 00:00:01.48 | 00:00:06.40  |
| Symbol table sort      | 0           | 00:00:00.12 | 00:00:00.37  |
| Pass 2                 | 36          | 00:00:00.31 | 00:00:01.23  |
| Symbol table output    | 3           | 00:00:00.01 | 00:00:00.01  |
| Psect synopsis output  | 0           | 00:00:00.02 | 00:00:00.02  |
| Cross-reference output | 0           | 00:00:00.00 | 00:00:00.00  |
| Assembler run totals   | 381         | 00:00:02.45 | 00:00:12.22  |

The working set limit was 1200 pages.  
9579 bytes (19 pages) of virtual memory were used to buffer the intermediate code.  
There were 10 pages of symbol table space allocated to hold 176 non-local and 1 local symbols.  
107 source lines were read in Pass 1, producing 16 object records in Pass 2.  
11 pages of virtual memory were used to define 10 macros.

-----  
! Macro library statistics !  
-----

| Macro library name                      | Macros defined |
|---|----------------|
| _\$255\$DUA28:[SYSLOA.OBJ]CLUSTER.MLB;1 | 0              |
| -\$255\$DUA28:[SYS.OBJ]LIB.MLB;1        | 3              |
| -\$255\$DUA28:[SYSLIB]STARLET.MLB;2     | 4              |
| TOTALS (all libraries)                  | 7              |

245 GETS were required to define 7 macros.

There were no errors, warnings or information messages.

CSPCJFRES  
VAX-11 Macro Run Statistics

M 3

16-SEP-1984 00:32:10 VAX/VMS Macro V04-00  
5-SEP-1984 04:08:40 [SYSLOA.SRC]CSPCJFRES.MAR;1

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(2)

MACRO/LIS=LIS\$:CSPCJFRES/OBJ=OBJ\$:CSPCJFRES MSRC\$:CSPCJFRES/UPDATE=(ENH\$:CSPCJFRES)+EXECMLS/LIB+LIB\$:CLUSTER/LIB

CSP  
V04-

0394 AH-BT13A-SE  
VAX/VMS V4.0

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LIS

CSPVECTOR  
LIS

CSPCLIENT  
LIS

DSTRLOCK  
LIS

DSTRLOCK  
LIS