



```

CCCCCCCC SSSSSSSS PPPPPPPP CCCCCCCC AAAAAA LL LL AAAAAA CCCCCCCC TTTTTTTTTT
CCCCCCCC SSSSSSSS PPPPPPPP CCCCCCCC AAAAAA LL LL AAAAAA CCCCCCCC TTTTTTTTTT
CC        SS          PP      PP   CC        AA      AA   LL LL AA      AA   CC  TTTT
CC        SS          PP      PP   CC        AA      AA   LL LL AA      AA   CC  TT
CC        SS          PP      PP   CC        AA      AA   LL LL AA      AA   CC  TT
CC        SS          PP      PP   CC        AA      AA   LL LL AA      AA   CC  TT
CC        SS          PP      PP   CC        AA      AA   LL LL AA      AA   CC  TT
CC        SS          PP      PP   CC        AAAAAAAAAA LL LL AAAAAAAAAA CC  TT
CC        SS          PP      PP   CC        AAAAAAAAAA LL LL AAAAAAAAAA CC  TT
CC        SS          PP      PP   CC        AA      AA   LL LL AA      AA   CC  TT
CC        SS          PP      PP   CC        AA      AA   LL LL AA      AA   CC  TT
CC        SS          PP      PP   CC        AA      AA   LL LL AA      AA   CC  TT
CCCCCCCC SSSSSSSS PPP        CCCCCCCC AA      AA   LLLLLLLLLL LLLLLLLLLL AA      AA   CCCCCCCC TTTT
CCCCCCCC SSSSSSSS PPP        CCCCCCCC AA      AA   LLLLLLLLLL LLLLLLLLLL AA      AA   CCCCCCCC TTTT

```

```

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

```

(2)	58	CSPSSCALL_ACTION
-----	----	------------------

```

0000 1      .TITLE  CSPCALLACT
0000 2      .IDENT  'V04-000'
0000 3
0000 4      *****
0000 5      *
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0000 22     *  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 23     *
0000 24     *
0000 25     *****
0000 26
0000 27     ++
0000 28
0000 29     FACILITY:      VMS Cluster Server
0000 30
0000 31     ABSTRACT:      Routine to enable the Cluster Server Process to call an
0000 32                   action routine
0000 33
0000 34     AUTHOR:        Paul R. Beck
0000 35
0000 36     DATE:          22-MAR-1983      Last Edit:  22-JUN-1983 19:16:23
0000 37
0000 38     REVISION HISTORY:
0000 39
0000 40           V03-003 ADE0001      Alan D. Eldridge      5-Feb 1983
0000 41           Some general cleanup.
0000 42
0000 43           V03-001 PRB0204      Paul Beck          2-MAY-1983
0000 44           Add test for zero client code
0000 45
0000 46     --
0000 47           $CSDDEF
0000 48           $CSPDEF
0000 49
0000 50
0000 51           Own storage
0000 52
0000 53
0000 54
00000000 55           .PSECT CODE,  NOPIC,EXE,NOWRT
0000 56

```

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Z

CSP\$\$CALL\_ACTION

```

0000 58 .SBTTL CSP$$CALL_ACTION
0000 59 :++
0000 60 :
0000 61 : Call the action routine for the client indicated in the request buffer.
0000 62 :
0000 63 : CALLING SEQUENCE: JSB CSP$$CALL_ACTION
0000 64 :
0000 65 : INPUT PARAMETERS: R2 = address of CSD structure
0000 66 :
0000 67 : OUTPUT PARAMETERS: None
0000 68 :
0000 69 : COMPLETION CODES: None
0000 70 :
0000 71 :--
0000 72 CSP$$CALL_ACTION::
50 0C A2 3C 0000 73 MOVZWL CSD$W_CODE(R2),R0 ; Get client code
00000000'8F 18 13 0004 74 BEQL 10$ ; If EQL, no client supplied.
51 00000000'GF 50 D1 0006 75 CMPL R0,#CSP$K_MAXACTION ; Is it within range?
51 51 6140 0F 14 000D 76 BGTR 10$ ; If GTRU, no
51 51 6140 9E 000F 77 MOVAB G^CSP$GL_ACTIONVEC,R1 ; Get vector of action routine addresses
51 51 6140 D0 0016 78 MOVL (R1)[R0],R1 ; Get address of action routine
51 51 6140 02 13 001A 79 BEQL 10$ ; If EQL, no such routine (unsupported)
51 51 6140 001C 80 ;JSB (R1) ; Call the action routine
51 51 6140 001C 81 ;RSB ; Return to caller
51 51 6140 61 17 001C 82 JMP (R1) ; Call the action routine and return.
0000 83 :
0000 84 : Handle error case: no such action routine
0000 85 :
50 00000000'8F D0 001E 86 10$: MOVL #SS$_BADPARAM,R0 ; Return error code
50 00000000'8F 05 0025 87 RSB ; ... to caller
0000 88
0000 89
0000 90 .END

```

CSPCALLACT  
Symbol table

C 16

16-SEP-1984 01:11:07 VAX/VMS Macro V04-00 Page 3  
5-SEP-1984 04:08:29 [SYSLOA.SRC]CSPCALLACT.MAR;1 (2)

CSD\$W CODE = 0000000C  
CSP\$CALL\_ACTION 00000000 RG 02  
CSP\$GL\_ACTIONVEC \*\*\*\*\* X 02  
CSP\$K\_MAXACTION \*\*\*\*\* X 02  
SS\$\_BADPARAM \*\*\*\*\* X 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
CODE	00000026 ( 38.)	02 ( 2.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC BYTE

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

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.02	00:00:01.53
Command processing	108	00:00:00.43	00:00:03.16
Pass 1	141	00:00:01.06	00:00:05.97
Symbol table sort	0	00:00:00.06	00:00:00.41
Pass 2	37	00:00:00.23	00:00:01.98
Symbol table output	2	00:00:00.01	00:00:00.01
Psect synopsis output	1	00:00:00.01	00:00:00.01
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	320	00:00:01.83	00:00:13.08

The working set limit was 1050 pages.  
6102 bytes (12 pages) of virtual memory were used to buffer the intermediate code.  
There were 10 pages of symbol table space allocated to hold 102 non-local and 1 local symbols.  
90 source lines were read in Pass 1, producing 13 object records in Pass 2.  
9 pages of virtual memory were used to define 8 macros.

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

Macro library name	Macros defined
-\$255\$DUA28:[SYSLOA.OBJ]CLUSTER.MLB;1	2
-\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	0
-\$255\$DUA28:[SYSLIB]STARLET.MLB;2	3
TOTALS (all libraries)	5

161 GETS were required to define 5 macros.

There were no errors, warnings or information messages.

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

0393 AH-BT13A-SE  
VAX/VMS V4.0

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The image displays a grid of 144 small terminal windows, arranged in 12 rows and 12 columns. Each window shows a different system utility or command-line interface. Several windows are highlighted with larger text labels:

- CSPCALL LIS
- CSPUFMAS LIS
- CSP LIS
- CSPBKTHR LIS
- CONUTIL LIS
- CONSUBS LIS