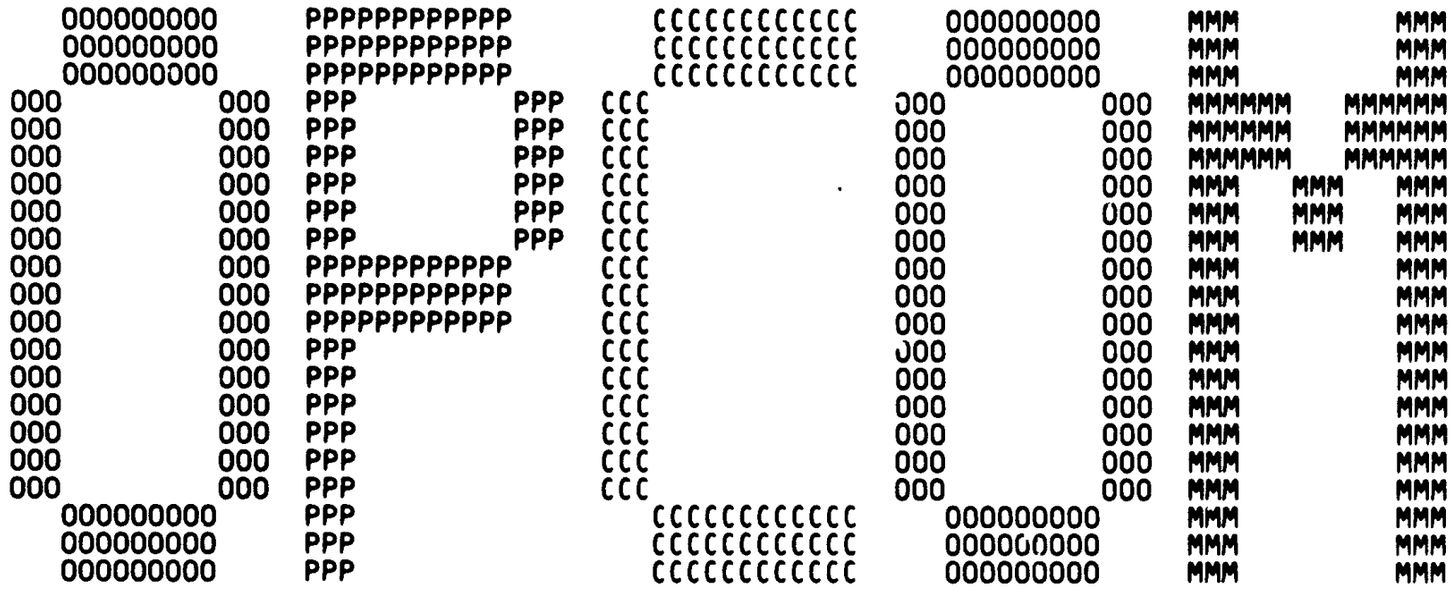

_$2

Sym

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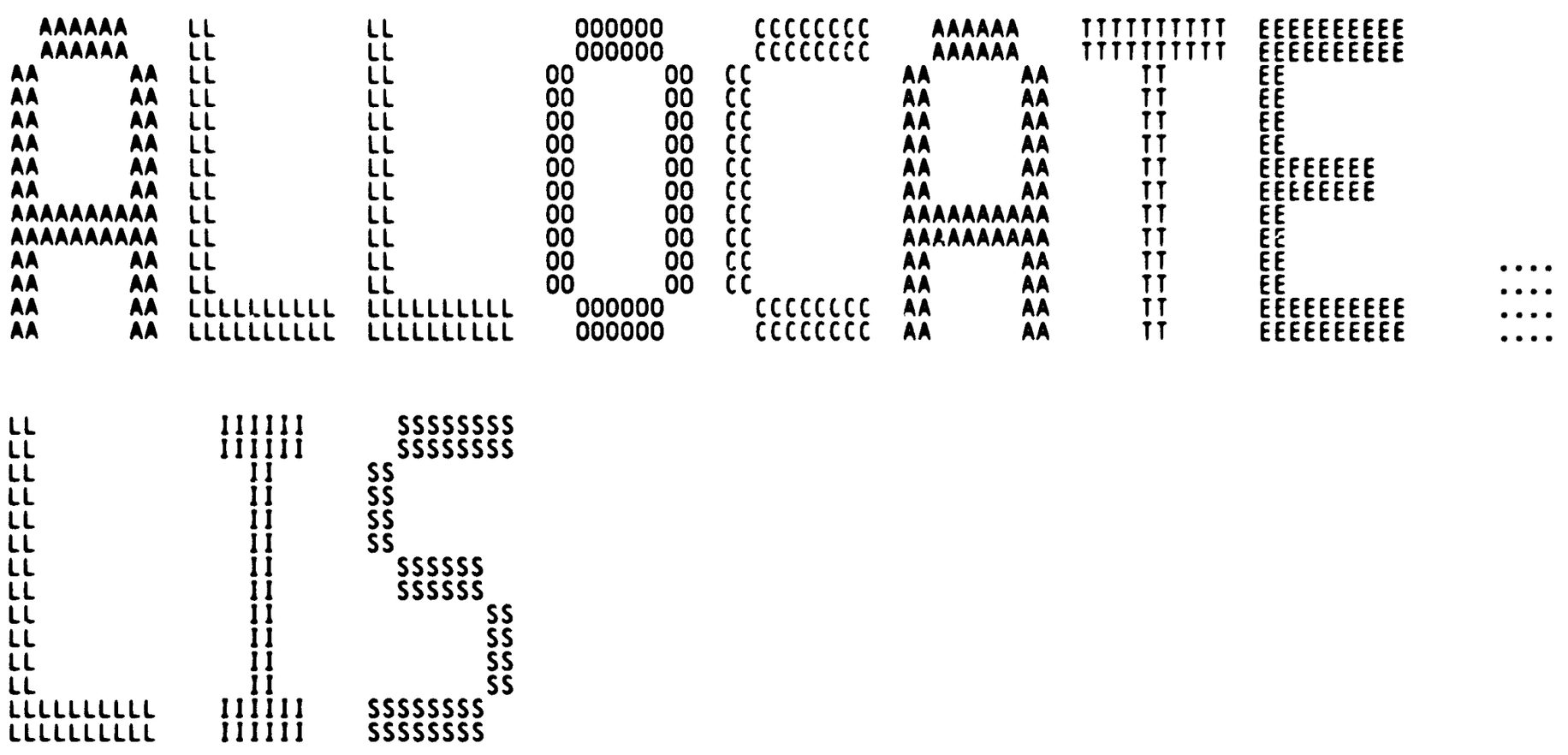
FILEID**ALLOCATE



```
;  1     0001  0 MODULE  OPC$ALLOCATE    (
;  2     0002  0                          LANGUAGE (BLISS32),
;  3     0003  0                          IDENT = 'V04-000'
;  4     0004  0                         ) =
;  5     0005  0
;  6     0006  0 !*****************************************************************************
;  7     0007  0 !*                                                                           *
;  8     0008  0 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                  *
;  9     0009  0 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                   *
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; 13     0013  0 !*  ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE  *
; 14     0014  0 !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER   *
; 15     0015  0 !*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY  *
; 16     0016  0 !*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY   *
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; 18     0018  0 !*                                                                           *
; 19     0019  0 !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE   *
; 20     0020  0 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
; 21     0021  0 !*  CORPORATION.                                                             *
; 22     0022  0 !*                                                                           *
; 23     0023  0 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS   *
; 24     0024  0 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                  *
; 25     0025  0 !*                                                                           *
; 26     0026  0 !*                                                                           *
; 27     0027  0 !*****************************************************************************
; 28     0028  0
; 29     0029  0 !++
; 30     0030  0 ! FACILITY:
; 31     0031  0 !
; 32     0032  0 !       OPCOM
; 33     0033  0 !
; 34     0034  0 ! ABSTRACT:
; 35     0035  0 !
; 36     0036  0 !       This module contains the logic to allocate and deallocate
; 37     0037  0 !       the various data structures used by OPCOM.
; 38     0038  0 !
; 39     0039  0 ! Environment:
; 40     0040  0 !
; 41     0041  0 !       VAX/VMS operating system.
; 42     0042  0 !
; 43     0043  0 ! Author:
; 44     0044  0 !
; 45     0045  0 !       Steven T. Jeffreys
; 46     0046  0 !
; 47     0047  0 ! Creation date:
; 48     0048  0 !
; 49     0049  0 !       March 10, 1981
; 50     0050  0 !
; 51     0051  0 ! Revision history:
; 52     0052  0 !
; 53     0053  0 !       V03-002 CWH3002         CW Hobbs                        16-Sep-1983
; 54     0054  0 !               Put VM calls in jacket routines to aid debugging.
; 55     0055  0 !
; 56     0056  0 !       V03-001 CWH3001         CW Hobbs                        30-Jul-1983
; 57     0057  0 !               Various and sundry things to make OPCOM distributed
```

```
;    58          0058  0 !                 across the cluster.
;    59          0059  0 !
;    60          0060  0 !  V02-002        STJ0161         Steven T. Jeffreys,     08-Feb-1982
;    61          0061  0 !                 Make references to library routines use general addressing mode.
;    62          0062  0 !
;    63          0063  0 !--
;    64          0064  0
;    65          0065  1 BEGIN                                           ! Start of ALLOCATE
;    66          0066  1
;    67          0067  1 LIBRARY 'SYS$LIBRARY:LIB.L32';
;    68          0068  1 LIBRARY 'LIB$:OPCOMLIB';
;    69          0069  1
;    70          0070  1 FORWARD ROUTINE
;    71          0071  1         ALLOCATE_DS,                            ! Allocate data structure
;    72          0072  1         CREATE_OCD      : NOVALUE,              ! Create a new OCD and insert it into an OCD list
;    73          0073  1         DEALLOCATE_DS,                          ! Deallocate data structure
;    74          0074  1         DEALLOCATE_MCB  : NOVALUE,              ! Deallocate an MCB.
;    75          0075  1         DEALLOCATE_OCD  : NOVALUE,              ! Deallocate an OCD
;    76          0076  1         DEALLOCATE_RQCB : NOVALUE;              ! Deallocate an RQCB.
;    77          0077  1
;    78          0078  1 BUILTIN
;    79          0079  1         INSQUE,                                 ! Insert entry onto a queue
;    80          0080  1         REMQUE;                                 ! Remove entry from a queue
```

```
;    82          0081  1 GLOBAL ROUTINE ALLOCATE_DS (DS_TYPE, DS_ADDR) =
;    83          0082  1
;    84          0083  1 !++
;    85          0084  1 ! Functional description:
;    86          0085  1 !
;    87          0086  1 !       This routine will allocate a block of process address space
;    88          0087  1 !       to be used as a data structure of the specified type.  This
;    89          0088  1 !       routine will also write some structure dependent information
;    90          0089  1 !       into the data structure.
;    91          0090  1 !
;    92          0091  1 ! Input:
;    93          0092  1 !
;    94          0093  1 !       DS_TYPE = The data structure type.  This is used as
;    95          0094  1 !                 an index into the SCB table to get some
;    96          0095  1 !                 structure dependent information.
;    97          0096  1 !
;    98          0097  1 ! Implicit Input:
;    99          0098  1 !
;   100          0099  1 !       The SCB data base.
;   101          0100  1 !
;   102          0101  1 ! Output:
;   103          0102  1 !
;   104          0103  1 !       DS_ADDR = An address of a longword to receive the data
;   105          0104  1 !                 structure address.
;   106          0105  1 !
;   107          0106  1 ! Implict output:
;   108          0107  1 !
;   109          0108  1 !       The SCB entry for this structure type is updated.
;   110          0109  1 !
;   111          0110  1 ! Side effects:
;   112          0111  1 !
;   113          0112  1 !       None.
;   114          0113  1 !
;   115          0114  1 ! Routine value:
;   116          0115  1 !
;   117          0116  1 !       TRUE             = The allocate succeeded.
;   118          0117  1 !       <anything else> = The allocate failed.
;   119          0118  1 !--
;   120          0119  1
;   121          0120  2 BEGIN                                           ! Start of ALLOCATE_DS
;   122          0121  2
;   123          0122  2 EXTERNAL ROUTINE
;   124          0123  2         CLUSUTIL_NEXT_SEQUENCE;                 ! Get a cluster-unique sequence number
;   125          0124  2
;   126          0125  2 EXTERNAL
;   127          0126  2         GLOBAL_STATUS   : BITVECTOR [32],
;   128          0127  2         LCL_NOD         : $ref_bblock,          ! Local NOD block pointer
;   129          0128  2         LCL_CSID        : LONG,                 ! CSID of local node
;   130          0129  2         SCB_TABLE       : VECTOR;               ! SCB table of pointers
;   131          0130  2
;   132          0131  2 EXTERNAL LITERAL
;   133          0132  2         SS$_BADPARAM,                           ! System status value
;   134          0133  2         MIN_DS_TYPE,                            ! Min STRUCTURE_TYPE value
;   135          0134  2         MAX_DS_TYPE;                            ! Max STRUCTURE_TYPE value
;   136          0135  2
;   137          0136  2 LOCAL
;   138          0137  2         SCB             : $ref_bblock,          ! SCB structure
```

```
;  139          0138  2          BLOCK           : $ref_bblock,          ! Block of VM allocated
;  140          0139  2          SIZE            : LONG;                 ! Size of the VM block
;  141          0140  2          STATUS          : LONG;
;  142          0141  2
;  143          0142  2
;  144          0143  2 !
;  145          0144  2 ! Make sure DS_TYPE is a legal value.
;  146          0145  2 !
;  147          0146  3 IF (.DS_TYPE LSS MIN_DS_TYPE) OR (.DS_TYPE GTR MAX_DS_TYPE)
;  148          0147  2 THEN
;  149          0148  2     $signal_stop (SS$_BADPARAM);
;  150          0149  2 !
;  151          0150  2 ! Get the structure info from the appropriate SCB.
;  152          0151  2 ! Allocate the structure from the look aside list if possible.
;  153          0152  2 !
;  154          0153  2 SCB = .SCB_TABLE [.DS_TYPE - 1];
;  155          0154  2 IF .SCB [SCB_W_LAL_COUNT] GTR 0
;  156          0155  2 THEN
;  157          0156  3     BEGIN
;  158          0157  3     REMQUE (.SCB [SCB_L_FLINK], BLOCK);
;  159          0158  3     SCB [SCB_W_LAL_COUNT] = .SCB [SCB_W_LAL_COUNT] - 1;
;  160          0159  3     END
;  161          0160  2 ELSE
;  162          0161  3     BEGIN
;  163          0162  3     !
;  164          0163  3     ! The look aside list was empty.
;  165          0164  3     ! Allocate and zero a block of memory via OPC$GET_VM.
;  166          0165  3     ! LAL blocks do not have to be zeroed, as it is done
;  167          0166  3     ! when the blocks are put on the list.
;  168          0167  3     !
;  169          0168  3     SIZE = .SCB [SCB_W_SIZE];
;  170          0169  4     IF NOT (STATUS = OPC$GET_VM (SIZE, BLOCK))
;  171          0170  3     THEN
;  172          0171  3         $signal_stop (.STATUS);
;  173          0172  3     CH$FILL (0, .SIZE, .BLOCK);
;  174          0173  3     !
;  175          0174  3     ! Fill in the structure dependent information.
;  176          0175  3     !
;  177          0176  3     BLOCK [HDR_L_FLINK] = BLOCK [HDR_L_FLINK];
;  178          0177  3     BLOCK [HDR_L_BLINK] = BLOCK [HDR_L_FLINK];
;  179          0178  3     BLOCK [HDR_W_SIZE]  = .SCB [SCB_W_SIZE];
;  180          0179  3     BLOCK [HDR_B_TYPE]  = .DS_TYPE;
;  181          0180  2     END;
;  182          0181  2
;  183          0182  2 !
;  184          0183  2 ! Set the cluster-wide data structure sequence number.
;  185          0184  2 !
;  186          0185  2 SCB [SCB_L_SEQNUM] = CLUSUTIL_NEXT_SEQUENCE (); ! Get a unique id and save it in the SCB
;  187          0186  2 BLOCK [HDR_L_SEQNUM] = .SCB [SCB_L_SEQNUM];     ! Mark the block field (read-only, nobody else should touch)
;  188          0187  2 BLOCK [HDR_L_IDENT] = .SCB [SCB_L_SEQNUM];      ! Also save as the ident field (read/write, allocate doesn't
;  189          0188  2 BLOCK [HDR_L_CSID] = .LCL_CSID;                 ! Zero means a local structure
;  190          0189  2 IF (BLOCK [HDR_L_NOD] = .LCL_NOD) NEQ 0         ! If in a cluster, set the local systemid field
;  191          0190  2 THEN
;  192          0191  3     BEGIN
;  193          0192  3     BLOCK [HDR_L_SYSTEMIDL] = .LCL_NOD [NOD_L_NODE_SYSTEMIDL];
;  194          0193  3     BLOCK [HDR_W_SYSTEMIDH] = .LCL_NOD [NOD_W_NODE_SYSTEMIDH];
;  195          0194  2     END;
```

```
;  196          0195  2 !
;  197          0196  2 ! Set the address of the data structure in the output cell.
;  198          0197  2 !
;  199          0198  2 .DS_ADDR = .BLOCK;
;  200          0199  2
;  201          0200  2 RETURN (TRUE);
;  202          0201  2
;  203          0202  1 END;                                    ! End of ALLOCATE_DS

                                                                .TITLE  OPC$ALLOCATE
                                                                .IDENT  \V04-000\

                                                                .EXTRN  CLUSUTIL_NEXT_SEQUENCE
                                                                .EXTRN  GLOBAL_STATUS, LCL_NOD
                                                                .EXTRN  LCL_CSID, SCB_TABLE
                                                                .EXTRN  SS$_BADPARAM, MIN_DS_TYPE
                                                                .EXTRN  MAX_DS_TYPE  LIB$STOP
                                                                .EXTRN  OPC$GET_VM

                                                                .PSECT  $CODE$,NOWRT,2

                                        00FC 00000              .ENTRY  ALLOCATE_DS, Save R2,R3,R4,R5,R6,R7     ; 0081
                                     5E 08  C2 00002            SUBL2   #8, SP                                  ;
                    00000000G    8F    04  AC  D1 00005        CMPL    DS_TYPE, #MIN_DS_TYPE                   ; 0146
                                           0A  19 00008        BLSS    1$                                      ;
                    00000000G    8F    04  AC  D1 0000A        CMPL    DS_TYPE, #MAX_DS_TYPE                   ;
                                           08  15 00012        BLEQ    2$                                      ;
                              00000000G  8F  DD 00014 1$:       PUSHL   #SS$_BADPARAM                           ; 0148
                                           2B  11 00017        BRB     4$                                      ;
                                 50    04  AC  D0 00019 2$:     MOVL    DS_TYPE, R0                             ; 0153
                                 57  0000GCF 40  D0 0001D       MOVL    SCB_TABLE-4[R0], SCB                    ;
                                       02  A7  B5 00021        TSTW    2(SCB)                                  ; 0154
                                           09  13 00024        BEQL    3$                                      ;
                                 6E    08  B7  0F 00026        REMQUE  @8(SCB), BLOCK                          ; 0157
                                       02  A7  B7 0002A        DECW    2(SCB)                                  ; 0158
                                           35  11 0002D        BRB     6$                                      ; 0154
                           04    AE          67  3C 0002F 3$:  MOVZWL  (SCB), SIZE                             ; 0168
                                             5E  DD 00033      PUSHL   SP                                      ; 0169
                                       08    AE  9F 00035      PUSHAB  SIZE                                    ;
                          0000G    CF          02  FB 00038    CALLS   #2, OPC$GET_VM                          ;
                                   0A          50  E8 0003D    BLBS    STATUS, 5$                              ;
                                               50  DD 00040    PUSHL   STATUS                                  ; 0171
                    00000000G      00          01  FB 00042 4$:  CALLS   #1, LIB$STOP                          ;
                                               04  00049      RET                                             ;
                                   56          6E  D0 0004A 5$:  MOVL    BLOCK, R6                             ; 0172
04    AE                    0C               6E  00  2C 0004D    MOVC5   #0, (SP), #0, SIZE, (R6)                ;
                                               66      00051                                                   ;
                                   66          56  D0 00052    MOVL    R6, (R6)                                ; 0176
                             04    A6          56  D0 00055    MOVL    R6, 4(R6)                               ; 0177
                             08    A6          67  B0 00059    MOVW    (SCB), 8(R6)                            ; 0178
                             0A    A6    04    AC  90 0005D    MOVB    DS_TYPE, 10(R6)                         ; 0179
                          0000G    CF          00  FB 00062 6$:  CALLS   #0, CLUSUTIL_NEXT_SEQUENCE            ; 0185
                             04    A7          50  D0 00067    MOVL    R0, 4(SCB)                              ;
                                   50          6E  D0 0006B    MOVL    BLOCK, R0                               ; 0186
                             0C    A0    04    A7  D0 0006E    MOVL    4(SCB), 12(R0)                          ;
                             10    A0    04    A7  D0 00072    MOVL    4(SCB), 16(R0)                          ; 0187
```

```
                14    A0      0000G   CF   D0 00084          MOVL    LCL_CSID, 20(R0)                ; 0188
                      51      0000G   CF   D0 0008A          MOVL    LCL_NOD, R1                     ; 0189
                18    A0              51   D0 0008F          MOVL    R1, 24(R0)                      ;
                                      0A   13 00093          BEQL    7$                              ;
                1C    A0        50    A1   D0 00095          MOVL    80(R1), 28(R0)                  ; 0192
                20    A0        54    A1   B0 0009A          MOVW    84(R1), 32(R0)                  ; 0193
                08    BC              50   D0 0009F 7$:      MOVL    R0, @DS_ADDR                    ; 0198
                      50              01   D0 000A3          MOVL    #1, R0                          ; 0200
                                           04 000A6          RET                                     ; 0202

; Routine Size:  167 bytes,    Routine Base:  $CODE$ + 0000
```

```
;  205     0203  1 GLOBAL ROUTINE CREATE_OCD (SCOPE, UIC, BLOCK) : NOVALUE =
;  206     0204  1
;  207     0205  1 !++
;  208     0206  1 ! Functional description:
;  209     0207  1 !
;  210     0208  1 !       This routine contains the specializedlogic to crea e and initialize
;  211     0209  1 !       an OCD and to insert it onto the appropriate OCD l.st.  The OCD list
;  212     0210  1 !       depends on the SCOPE.
;  213     0211  1 !
;  214     0212  1 ! Input:
;  215     0213  1 !
;  216     0214  1 !       SCOPE   : The sccpe of the OCD.
;  217     0215  1 !       UIC     : The UIC of the OCD.
;  218     0216  1 !
;  219     0217  1 ! Implicit Input:
;  220     0218  1 !
;  221     0219  1 !       None.
;  222     0220  1 !
;  223     0221  1 ! Output:
;  224     0222  1 !
;  225     0223  1 !       BLOCK   : The address of a longword to receive the
;  226     0224  1 !                 address of the new OCD.
;  227     0225  1 !
;  228     0226  1 ! Implict output:
;  229     0227  1 !
;  230     0228  1 !       None.
;  231     0229  1 !
;  232     0230  1 ! Side effects:
;  233     0231  1 !
;  234     0232  1 !       None.
;  235     0233  1 !
;  236     0234  1 ! Routine value:
;  237     0235  1 !
;  238     0236  1 !       None.
;  239     0237  1 !--
;  240     0238  1
;  241     0239  2 BEGIN                                           ! Start of CREATE_OCD
;  242     0240  2
;  243     0241  2 EXTERNAL LITERAL
;  244     0242  2         OCD_K_TYPE;                             ! Structure type
;  245     0243  2
;  246     0244  2 EXTERNAL ROUTINE
;  247     0245  2         ALLOCATE_DS;                            ! Allocate a data structure
;  248     0246  2
;  249     0247  2 EXTERNAL
;  250     0248  2         OCD_VECTOR      : VECTOR;               ! Pointers to OCD list heads
;  251     0249  2
;  252     0250  2 LOCAL
;  253     0251  2         STATUS          : LONG,
;  254     0252  2         OCD             : $ref_bblock;          ! OCD data structure
;  255     0253  2
;  256     0254  2 !
;  257     0255  2 ! NOTE: This routine is incomplete, and must later be enhanced
;  258     0256  2 !       to create and link in a default LCB as well.
;  259     0257  2 !
;  260     0258  3 IF NOT (ALLOCATE_DS (OCD_K_TYPE, OCD))          ! Allocate a new OCD
;  261     0259  2 THEN
```

```
;  262          0260  2      RETURN (.STATUS);
;  263          0261  2 OCD [OCD_L_FLINK] = OCD [OCD_L_FLINK];          ! Init OCD list head
;  264          0262  2 OCD [OCD_L_BLINK] = OCD [OCD_L_FLINK];          !
;  265          0263  2 OCD [OCD_L_RQSTFLINK] = OCD [OCD_L_RQSTFLINK];  ! Init request list head
;  266          0264  2 OCD [OCD_L_RQSTBLINK] = OCD [OCD_L_RQSTFLINK];  !
;  267          0265  2 OCD [OCD_L_OPERFLINK] = OCD [OCD_L_OPERFLINK];  ! Init operator list head
;  268          0266  2 OCD [OCD_L_OPERBLINK] = OCD [OCD_L_OPERFLINK];  !
;  269          0267  2 OCD [OCD_B_SCOPE] = .SCOPE;                     ! Set the OCD SCOPE
;  270          0268  2 OCD [OCD_L_UIC] = .UIC;                         ! Set the OCD UIC
;  271          0269  2 OCD [OCD_L_NOTIFYMASK1] = -1;                   ! Broadcast all messages
;  272          0270  2 OCD [OCD_L_NOTIFYMASK2] = -1;                   !
;  273          0271  2 !
;  274          0272  2 ! Imsert the OCD in the appropriate OCD list.  If the list is empty,
;  275          0273  2 ! then this OCD will be the list head, and the OCD_VECTOR must be
;  276          0274  2 ! made to point to it.  After inserting the OCD, increment the OCD count
;  277          0275  2 ! for this list.
;  278          0276  2 !
;  279          0277  2 IF .OCD_VECTOR [(.OCD [OCD_B_SCOPE]-1)*2+1] EQL 0
;  280          0278  2 THEN
;  281          0279  2     OCD_VECTOR [(.OCD [OCD_B_SCOPE]-1)*2] = .OCD! Make OCD_VECTOR point to the OCD
;  282          0280  2 ELSE
;  283          0281  2     INSQUE (.OCD, .OCD_VECTOR [(.OCD [OCD_B_SCOPE]-1)*2]);
;  284          0282  2 OCD_VECTOR [(.OCD [OCD_B_SCOPE]-1)*2+1] = .OCD_VECTOR [(.OCD [OCD_B_SCOPE]-1)*2+1] + 1;
;  285          0283  2 .BLOCK = .OCD;                                  ! Return OCD address
;  286          0284  2
;  287          0285  1 END;                                           ! End of CREATE_OCD
; INFO#250              L1:0260
; Referenced LOCAL symbol STATUS is probably not initialized

                                                .EXTRN  OCD_K_TYPE, OCD_VECTOR

                                        001C 00000      .ENTRY  CREATE_OCD, Save R2,R3,R4       ; 0203
                        54      0000G   CF   9E 00002   MOVAB   OCD_VECTOR-4, R4                ;
                        52              04   C2 00007   SUBL2   #4, SP                         ;
                                        5E   DD 0000A   PUSHL   SP                              ; 0258
                                00000000G 8F DD 0000C   PUSHL   #OCD_K_TYPE                     ;
                    0000G   CF          02   FB 00012   CALLS   #2, ALLOCATE_DS                 ;
                            66          50   E9 00017   BLBC    R0, 3$                       ;
                            50          6E   D0 0001A   MOVL    OCD, R0                      ; 0261
                            60          50   D0 0001D   MOVL    R0, (R0)                     ;
                        04  A0          50   D0 00020   MOVL    R0, 4(R0)                    ; 0262
                        3C  A0      3C  A0   9E 00024   MOVAB   60(R0), 60(R0)               ; 0263
                        40  A0      3C  A0   9E 00029   MOVAB   60(R0), 64(R0)               ; 0264
                        50  A0      50  A0   9E 0002E   MOVAB   80(R0), 80(R0)               ; 0265
                        54  A0      50  A0   9E 00033   MOVAB   80(R0), 84(R0)               ; 0266
                        0B  A0      04  AC   90 00038   MOVB    SCOPE, 11(R0)                ; 0267
                        24  A0      08  AC   D0 0003D   MOVL    UIC, 36(R0)                  ; 0268
                        2C  A0          01   CE 00042   MNEGL   #1, 44(R0)                   ; 0269
                        30  A0          01   CE 00046   MNEGL   #1, 48(R0)                   ; 0270
                            52      0B  A0   9A 0004A   MOVZBL  11(R0), R2                   ; 0277
                51          52          01   78 0004E   ASHL    #1, R2, R1                   ;
                                      6441   D5 00052   TSTL    OCD_VECTOR-4[R1]             ;
                                        0B   12 00055   BNEQ    1$                           ;
                51          52          01   78 00057   ASHL    #1, R2, R1                   ; 0279
                        FC  A441        50   D0 0005B   MOVL    R0, OCD_VECTOR-8[R1]         ;
```

```
                                    0D  11 00060          BRB     2$                                      ;
                51          52      01  78 00062 1$:     ASHL    #1, R2, R1                              ; 0281
                            53  FC A441  DE 00066          MOVAL   OCD_VECTOR-8[R1], R3                    ;
                00      B3          60  0E 0006B          INSQUE  (R0), @0(R3)                            ;
                            51      6E  D0 0006F 2$:      MOVL    OCD, R1                                 ; 0282
                            50  0B  A1  9A 00072          MOVZBL  11(R1), R0                              ;
                            50      02  C4 00076          MULL2   #2, R0                                  ;
                                6440    D6 00079          INCL    OCD_VECTOR-4[R0]                        ;
                0C      BC          51  D0 0007C          MOVL    R1, @BLOCK                              ; 0283
                                        04 00080 3$:      RET                                             ; 0285

; Routine Size:  129 bytes,    Routine Base:  $CODE$ + 00A7
```

```
;  289     0286  1 GLOBAL ROUTINE DEALLOCATE_DS (DS_ADDR) =
;  290     0287  1
;  291     0288  1 !++
;  292     0289  1 ! Functional description:
;  293     0290  1 !
;  294     0291  1 !       This routine will deallocate a data structure.
;  295     0292  1 !       The data structure is zeroed and placed on the
;  296     0293  1 !       appropriate free list.
;  297     0294  1 !
;  298     0295  1 ! Input:
;  299     0296  1 !
;  300     0297  1 !       DS_ADDR = The address of the data structure.
;  301     0298  1 !
;  302     0299  1 ! Implicit Input:
;  303     0300  1 !
;  304     0301  1 !       The SCB data base.
;  305     0302  1 !
;  306     0303  1 ! Output:
;  307     0304  1 !
;  308     0305  1 !       None.
;  309     0306  1 !
;  310     0307  1 ! Implict output:
;  311     0308  1 !
;  312     0309  1 !       The SCB entry for this structure type is updated.
;  313     0310  1 !
;  314     0311  1 ! Side effects:
;  315     0312  1 !
;  316     0313  1 !       None.
;  317     0314  1 !
;  318     0315  1 ! Routine value:
;  319     0316  1 !
;  320     0317  1 !       TRUE             = The deallocate succeeded.
;  321     0318  1 !       <anything else> = The deallocate failed.
;  322     0319  1 !--
;  323     0320  1
;  324     0321  2 BEGIN                                           ! Start of ALLOCATE_DS
;  325     0322  2
;  326     0323  2 MAP
;  327     0324  2         DS_ADDR          : $ref_bblock;
;  328     0325  2
;  329     0326  2 EXTERNAL
;  330     0327  2         SCB_TABLE        : VECTOR;              ! SCB table of pointers
;  331     0328  2
;  332     0329  2 EXTERNAL LITERAL
;  333     0330  2         SS$_BADPARAM,                           ! System status value
;  334     0331  2         MIN_DS_TYPE,                            ! Min STRUCTURE_TYPE value
;  335     0332  2         MAX_DS_TYPE;                            ! Max STRUCTURE_TYPE value
;  336     0333  2
;  337     0334  2 LOCAL
;  338     0335  2         SCB              : $ref_bblock;         ! SCB structure
;  339     0336  2
;  340     0337  2 !
;  341     0338  2 ! Check input parameter.
;  342     0339  2 !
;  343     0340  3 IF (.DS_ADDR [HDR_B_TYPE] LSS MIN_DS_TYPE)
;  344     0341  3 OR (.DS_ADDR [HDR_B_TYPE] GTR MAX_DS_TYPE)
;  345     0342  3 OR (.DS_ADDR EQL 0)
```

```
;   346          0343  2 THEN
;   347          0344  2     RETURN (FALSE);
;   348          0345  2
;   349          0346  2 ! Zero the block and place it on the correct look aside list.
;   350          0347  2 ! The first 11 bytes of the data structure are not zeroed, because
;   351          0348  2 ! they contain info that will identify the structure.
;   352          0349  2 !
;   353          0350  2 SCB = .SCB_TABLE [.DS_ADDR [HDR_B_TYPE] - 1];    ! Get the SCB address
;   354          0351  2 CH$FILL (0, (.SCB [SCB_W_SIZE] - $BYTEOFFSET (HDR_B_SCOPE)), (.DS_ADDR + $BYTEOFFSET (HDR_B_SCOPE)));
;   355          0352  2 DS_ADDR [HDR_V_LAL] = TRUE;                      ! Mark this an LAL block
;   356          0353  2 INSQUE (DS_ADDR [HDR_L_FLINK], SCB [SCB_L_FLINK]);    ! Put structure on LAL
;   357          0354  2 SCB [SCB_W_LAL_COUNT] = .SCB [SCB_W_LAL_COUNT] + 1;    ! Incr. the LAL count
;   358          0355  2
;   359          0356  2 RETURN (TRUE);
;   360          0357  2
;   361          0358  1 END;                                    ! End of DEALLOCATE_DS


                                                  00FC 00000          .ENTRY  DEALLOCATE_DS, Save R2,R3,R4,R5,R6,R7      ; 0286
                                          57  04  AC  D0 00002        MOVL    DS_ADDR, R7                                ; 0340
00000000G   8F      0A  A7          08          00  ED 00006        CMPZV   #0, #8, 10(R7), #MIN_DS_TYPE               ;
                                                39  19 00010        BLSS    1$                                         ;
00000000G   8F      0A  A7          08          00  ED 00012        CMPZV   #0, #8, 10(R7), #MAX_DS_TYPE               ; 0341
                                                2D  14 0001C        BGTR    1$                                         ;
                                                57  D5 0001E        TSTL    R7                                         ; 0342
                                                29  13 00020        BEQL    1$                                         ;
                                          50        0A  A7  9A 00022        MOVZBL  10(R7), R0                         ; 0350
                                          56  0000GCF   40  D0 00026        MOVL    SCB_TABLE-4[R0], SCB               ;
                                          50            66  3C 0002C        MOVZWL  (SCB), R0                          ; 0351
                                          50            0B  C2 0002F        SUBL2   #11, R0                            ;
        50              00                6E            00  2C 00032        MOVC5   #0, (SP), #0, R0, 11(R7)           ;
                                                    0B  A7      00037                                                   ;
                                    28  A7                  01  88 00039        BISB2   #1, 40(R7)                         ; 0352
                                          50        08  A6  9E 0003D        MOVAB   8(R6), R0                          ; 0353
                                          60            67  0E 00041        INSQUE  (R7), (R0)                         ;
                                                    02  A6  B6 00044        INCW    2(SCB)                             ; 0354
                                          50            01  D0 00047        MOVL    #1, R0                             ; 0356
                                                        04  0004A        RET                                        ;
                                                50      D4  0004B 1$:    CLRL    R0                                 ; 0358
                                                        04  0004D        RET                                        ;

; Routine Size:  78 bytes,    Routine Base:  $CODE$ + 0128
```

```
;  363     0359  1 GLOBAL ROUTINE DEALLOCATE_MCB (MCB) : NOVALUE =
;  364     0360  1
;  365     0361  1 !++
;  366     0362  1 ! Functional description:
;  367     0363  1 !
;  368     0364  1 !       This routine contains the specialized logic to
;  369     0365  1 !       deallocate an MCB.
;  370     0366  1 !
;  371     0367  1 ! Input:
;  372     0368  1 !
;  373     0369  1 !       MCB     : Address of an MCB.
;  374     0370  1 !
;  375     0371  1 ! Implicit Input:
;  376     0372  1 !
;  377     0373  1 !       None.
;  378     0374  1 !
;  379     0375  1 ! Output:
;  380     0376  1 !
;  381     0377  1 !       None.
;  382     0378  1 !
;  383     0379  1 ! Implict output:
;  384     0380  1 !
;  385     0381  1 !       None.
;  386     0382  1 !
;  387     0383  1 ! Side effects:
;  388     0384  1 !
;  389     0385  1 !       None.
;  390     0386  1 !
;  391     0387  1 ! Routine value:
;  392     0388  1 !
;  393     0389  1 !       None.
;  394     0390  1 !--
;  395     0391  1
;  396     0392  2 BEGIN                                           ! Start of DEALLOCATE_MCB
;  397     0393  2
;  398     0394  2 MAP
;  399     0395  2         MCB             : $ref_bblock;
;  400     0396  2
;  401     0397  2 EXTERNAL ROUTINE
;  402     0398  2         DEALLOCATE_DS;                          ! Deallocate a data structure
;  403     0399  2
;  404     0400  2 EXTERNAL LITERAL
;  405     0401  2         MCB_K_TYPE,                             ! MCB structure type
;  406     0402  2         SS$_BADPARAM;                           ! System status code
;  407     0403  2
;  408     0404  2 LOCAL
;  409     0405  2         RQCB            : $ref_bblock;
;  410     0406  2
;  411     0407  2 !
;  412     0408  2 ! If block address is 0, then there is no work to do.
;  413     0409  2 !
;  414     0410  2 IF .MCB EQL 0
;  415     0411  2 THEN
;  416     0412  2     RETURN;
;  417     0413  2 !
;  418     0414  2 ! Make sure this is an MCB.
;  419     0415  2 !
```

```
;  420          0416  3 IF (.MCB [MCB_B_TYPE] NEQ MCB_K_TYPE)
;  421          0417  2 THEN
;  422          0418  2     RETURN;
;  423          0419  2 !
;  424          0420  2 ! If the MCB points to any message text, deallocate
;  425          0421  2 ! the text buffer.
;  426          0422  2 !
;  427          0423  2 IF .MCB [MCB_L_TEXTPTR] NEQ 0
;  428          0424  2 THEN
;  429          0425  3     BEGIN
;  430          0426  3     OPC$FREE_VM (MCB [MCB_L_TEXTLEN], MCB [MCB_L_TEXTPTR]);
;  431          0427  3     MCB [MCB_L_TEXTPTR] = 0;
;  432          0428  2     END;
;  433          0429  2 !
;  434          0430  2 ! Deallocate the MCB.  As an added precaution,
;  435          0431  2 ! explicitly zero the RQCB backpointer.
;  436          0432  2 !
;  437          0433  2 RQCB = .MCB [MCB_L_RQCB];                       ! Get back pointer to RQCB
;  438          0434  3 IF NOT (.RQCB EQL 0)
;  439          0435  2 THEN
;  440          0436  2     RQCB [RQCB_L_MCB] = 0;                      ! Break link from RQCB to MCB
;  441          0437  2 MCB [MCB_L_RQCB] = 0;                           ! Break link from MCB to RQCB
;  442          0438  2 DEALLOCATE_DS (.MCB);
;  443          0439  2
;  444          0440  1 END;                                            ! End of DEALLOCATE_MCB


                                                        .EXTRN  MCB_K_TYPE, OPC$FREE_VM

                                                0004 00000      .ENTRY  DEALLOCATE_MCB, Save R2                 ; 0359
                                    52      04  AC   D0 00002      MOVL    MCB, R2                             ; 0410
                                                32   13 00006      BEQL    3$                                  ;
00000000G  8F       0A      A2              08      00   ED 00008  CMPZV   #0, #8, 10(R2), #MCB_K_TYPE         ; 0416
                                                26   12 00012      BNEQ    3$                                  ;
                                            34  A2   D5 00014      TSTL    52(R2)                              ; 0423
                                                0E   13 00017      BEQL    1$                                  ;
                                            34  A2   9F 00019      PUSHAB  52(R2)                              ; 0426
                                            30  A2   9F 0001C      PUSHAB  48(R2)                              ;
                                0000G       CF      02   FB 0001F  CALLS   #2, OPC$FREE_VM                     ;
                                            34  A2   D4 00024      CLRL    52(R2)                              ; 0427
                                    50      24  A2   D0 00027 1$:  MOVL    36(R2), RQCB                        ; 0433
                                                03   13 0002B      BEQL    2$                                  ; 0434
                                            6C  A0   D4 0002D      CLRL    108(RQCB)                           ; 0436
                                            24  A2   D4 00030 2$:  CLRL    36(R2)                              ; 0437
                                                52   DD 00033      PUSHL   R2                                  ; 0438
                                0000G       CF      01   FB 00035  CALLS   #1, DEALLOCATE_DS                   ;
                                                    04   0003A 3$:  RET                                         ; 0440

; Routine Size:  59 bytes,    Routine Base:  $CODE$ + 0176
```

```
;  446          0441  1 GLOBAL ROUTINE DEALLOCATE_OCD (OCD) : NOVALUE =
;  447          0442  1
;  448          0443  1 !++
;  449          0444  1 ! Functional description:
;  450          0445  1 !
;  451          0446  1 !       This routine contains the specialized logic to deallocate
;  452          0447  1 !       an OCD to the appropriate free list.
;  453          0448  1 !
;  454          0449  1 ! Input:
;  455          0450  1 !
;  456          0451  1 !       OCD     : Address of an OCD
;  457          0452  1 !
;  458          0453  1 ! Implicit Input:
;  459          0454  1 !
;  460          0455  1 !       None.
;  461          0456  1 !
;  462          0457  1 ! Output:
;  463          0458  1 !
;  464          0459  1 !       None.
;  465          0460  1 !
;  466          0461  1 ! Implict output:
;  467          0462  1 !
;  468          0463  1 !       None.
;  469          0464  1 !
;  470          0465  1 ! Side effects:
;  471          0466  1 !
;  472          0467  1 !       None.
;  473          0468  1 !
;  474          0469  1 ! Routine value:
;  475          0470  1 !
;  476          0471  1 !       None.
;  477          0472  1 !--
;  478          0473  1
;  479          0474  2 BEGIN                                           ! Start of DEALLOCATE_OCD
;  480          0475  2
;  481          0476  2 MAP
;  482          0477  2         OCD             : $ref_bblock;          ! OCD structure
;  483          0478  2
;  484          0479  2 EXTERNAL ROUTINE
;  485          0480  2         DEALLOCATE_DS;                          ! Deallocate a data structure
;  486          0481  2
;  487          0482  2 EXTERNAL LITERAL
;  488          0483  2         OCD_K_TYPE;                             ! OCD structure type
;  489          0484  2
;  490          0485  2 EXTERNAL
;  491          0486  2         OCD_VECTOR      : VECTOR;               ! Pointers to OCDs
;  492          0487  2
;  493          0488  2 LOCAL
;  494          0489  2         TEMP            : LONG;                 ! Used to receive an address
;  495          0490  2
;  496          0491  2 !
;  497          0492  2 ! Make sure that the data structure is an OCD.
;  498          0493  2 !
;  499          0494  3 IF (.OCD EQL 0) OR (.OCD [OCD_B_TYPE] NEQ OCD_K_TYPE)
;  500          0495  2 THEN
;  501          0496  2     RETURN;
;  502          0497  2 !
```

```
;  503          0498  2 ! If the OCD is still busy, do not deallocate it.
;  504          0499  2 !
;  505          0500  3 IF (.OCD [OCD_W_OPERCOUNT] NEQ 0)
;  506          0501  3 OR (.OCD [OCD_W_RQSTCOUNT] NEQ 0)
;  507          0502  3 OR (.OCD [OCD_L_LCB] NEQ 0)
;  508          0503  2 THEN
;  509          0504  2     RETURN;
;  510          0505  2 !
;  511          0506  2 ! Decrement the OCD count of the appropriate location in
;  512          0507  2 ! the OCD vector and remove the OCD from the OCD list.
;  513          0508  2 ! If the count went to zero, then the pointer to the first
;  514          0509  2 ! OCD in the OCD vector must be zeroed.
;  515          0510  2 !
;  516          0511  2 REMQUE  (OCD [OCD_L_FLINK], TEMP);
;  517          0512  2 OCD_VECTOR [(.OCD [OCD_B_SCOPE]-1)*2+1] = .OCD_VECTOR [(.OCD [OCD_B_SCOPE]-1)*2+1] - 1;
;  518          0513  2 IF .OCD_VECTOR [(.OCD [OCD_B_SCOPE]-1)*2+1] EQL 0
;  519          0514  2 THEN
;  520          0515  2     OCD_VECTOR [(.OCD [OCD_B_SCOPE]-1)*2] = 0;
;  521          0516  2 !
;  522          0517  2 ! Release the OCD.
;  523          0518  2 !
;  524          0519  2 DEALLOCATE_DS (.OCD);
;  525          0520  2 RETURN;
;  526          0521  2
;  527          0522  1 END;                                    ! End of DEALLOCATE_OCD


                                        0004 00000          .ENTRY  DEALLOCATE_OCD, Save R2                 ; 0441
                                50      04    AC  D0 00002  MOVL    OCD, R0                                 ; 0494
                                                41  13 00006  BEQL    2$                                      ;
00000000G  8F       0A  A0              08      00  ED 00008  CMPZV   #0, #8, 10(R0), #OCD_K_TYPE            ;
                                                35  12 00012  BNEQ    2$                                      ;
                                            46  A0  B5 00014  TSTW    70(R0)                                  ; 0500
                                                30  12 00017  BNEQ    2$                                      ;
                                            3A  A0  B5 00019  TSTW    58(R0)                                  ; 0501
                                                2B  12 0001C  BNEQ    2$                                      ;
                                            34  A0  D5 0001E  TSTL    52(R0)                                  ; 0502
                                                26  12 00021  BNEQ    2$                                      ;
                                51              60  0F 00023  REMQUE  (R0), TEMP                              ; 0511
                                52      04    AC  D0 00026  MOVL    OCD, R2                                 ; 0512
                                51      0B    A2  9A 0002A  MOVZBL  11(R2), R1                              ;
                    50          51              01  78 0002E  ASHL    #1, R1, R0                              ;
                                        0000GCF 40  D7 00032  DECL    OCD_VECTOR-4[R0]                        ;
                                                09  12 00037  BNEQ    1$                                      ; 0513
                    50          51              01  78 00039  ASHL    #1, R1, R0                              ; 0515
                                        0000GCF 40  D4 0003D  CLRL    OCD_VECTOR-8[R0]                        ;
                                                52  DD 00042  1$:     PUSHL   R2                              ; 0519
                          0000G CF              01  FB 00044          CALLS   #1, DEALLOCATE_DS               ;
                                                    04 00049  2$:     RET                                     ; 0522

; Routine Size:  74 bytes,    Routine Base:  $CODE$ + 01B1
```

```
;  529     0523  1 GLOBAL ROUTINE DEALLOCATE_RQCB (RQCB) : NOVALUE =
;  530     0524  1
;  531     0525  1 !++
;  532     0526  1 ! Functional description:
;  533     0527  1 !
;  534     0528  1 !       This routine contains the specialized logic to
;  535     0529  1 !       deallocate an RQCB and any data structures that
;  536     0530  1 !       that may be linked to it.
;  537     0531  1 !
;  538     0532  1 ! Input:
;  539     0533  1 !
;  540     0534  1 !       RQCB    :  Address of an RQCB.
;  541     0535  1 !
;  542     0536  1 ! Implicit Input:
;  543     0537  1 !
;  544     0538  1 !       None.
;  545     0539  1 !
;  546     0540  1 ! Output:
;  547     0541  1 !
;  548     0542  1 !       None.
;  549     0543  1 !
;  550     0544  1 ! Implict output:
;  551     0545  1 !
;  552     0546  1 !       None.
;  553     0547  1 !
;  554     0548  1 ! Side effects:
;  555     0549  1 !
;  556     0550  1 !       None.
;  557     0551  1 !
;  558     0552  1 ! Routine value:
;  559     0553  1 !
;  560     0554  1 !       None.
;  561     0555  1 !--
;  562     0556  1
;  563     0557  2 BEGIN                                           ! Start of DEALLOCATE_RQCB
;  564     0558  2
;  565     0559  2 MAP
;  566     0560  2         RQCB            : $ref_bblock;
;  567     0561  2
;  568     0562  2 EXTERNAL ROUTINE
;  569     0563  2         DEALLOCATE_DS,                          ! Deallocate a data structure
;  570     0564  2         DEALLOCATE_MCB  : NOVALUE;              ! Deallocate an MCB
;  571     0565  2
;  572     0566  2 EXTERNAL LITERAL
;  573     0567  2         RQCB_K_TYPE;                            ! RQCB structure type
;  574     0568  2
;  575     0569  2 !
;  576     0570  2 ! If no block specified, then return.
;  577     0571  2 !
;  578     0572  2 IF .RQCB EQL 0
;  579     0573  2 THEN
;  580     0574  2     RETURN;
;  581     0575  2 !
;  582     0576  2 ! Make sure this is a RQCB.
;  583     0577  2 !
;  584     0578  3 IF (.RQCB [RQCB_B_TYPE] NEQ RQCB_K_TYPE)
;  585     0579  2 THEN
```

```
;  586          0580  2      RETURN;
;  587          0581  2  !
;  588          0582  2  ! If there is an MCB linked to the RQCB then deallocate it.
;  589          0583  2  !
;  590          0584  2  IF .RQCB [RQCB_L_MCB] NEQ 0
;  591          0585  2  THEN
;  592          0586  3      BEGIN
;  593          0587  3      DEALLOCATE_MCB (.RQCB [RQCB_L_MCB]);
;  594          0588  3      RQCB [RQCB_L_MCB] = 0;
;  595          0589  2      END;
;  596          0590  2  !
;  597          0591  2  ! If the operator name descriptor is valid, deallocate
;  598          0592  2  ! the block of memory it points to.
;  599          0593  2  !
;  600          0594  2  IF .RQCB [RQCB_L_OPER_PTR] NEQ 0
;  601          0595  2  THEN
;  602          0596  3      BEGIN
;  603          0597  3      OPC$FREE_VM (RQCB [RQCB_L_OPER_LEN], RQCB [RQCB_L_OPER_PTR]);
;  604          0598  3      RQCB [RQCB_L_OPER_PTR] = 0;
;  605          0599  2      END;
;  606          0600  2  !
;  607          0601  2  ! If the request/reply text descriptor is valid,
;  608          0602  2  ! deallocate the block of memory it points to.
;  609          0603  2  !
;  610          0604  2  IF .RQCB [RQCB_L_TEXT_PTR] NEQ 0
;  611          0605  2  THEN
;  612          0606  3      BEGIN
;  613          0607  3      OPC$FREE_VM (RQCB [RQCB_L_TEXT_LEN], RQCB [RQCB_L_TEXT_PTR]);
;  614          0608  3      RQCB [RQCB_L_TEXT_PTR] = 0;
;  615          0609  2      END;
;  616          0610  2  !
;  617          0611  2  ! Deallocate the RQCB.
;  618          0612  2  !
;  619          0613  2  DEALLOCATE_DS (.RQCB);
;  620          0614  2
;  621          0615  1  END;                                   ! End of DEALLOCATE_RQCB


                                                        .EXTRN  RQCB_K_TYPE

                                                 000C 00000     .ENTRY  DEALLOCATE_RQCB, Save R2,R3                     ; 0523
                                      52    04   AC  D0 00002     MOVL    RQCB, R2                                    ; 0572
                                                 4E  13 00006     BEQL    4$                                          ;
00000000G  8F     0A  A2              08         00  ED 00008     CMPZV   #0, #8, 10(R2), #RQCB_K_TYPE                ; 0578
                                                 42  12 00012     BNEQ    4$                                          ;
                                            6C   A2  D5 00014     TSTL    108(R2)                                     ; 0584
                                                 0B  13 00017     BEQL    1$                                          ;
                                            6C   A2  DD 00019     PUSHL   108(R2)                                     ; 0587
                                  0000G     CF       01  FB 0001C     CALLS   #1, DEALLOCATE_MCB                      ;
                                            6C   A2  D4 00021     CLRL    108(R2)                                     ; 0588
                                      53    0080 C2  9E 00024 1$:  MOVAB   128(R2), R3                                 ; 0594
                                                 63  D5 00029     TSTL    (R3)                                        ;
                                                 0C  13 0002B     BEQL    2$                                          ;
                                                 53  DD 0002D     PUSHL   R3                                          ; 0597
                                            7C   A2  9F 0002F     PUSHAB  124(R2)                                     ;
                                  0000G     CF       02  FB 00032     CALLS   #2, OPC$FREE_VM                         ;
```

```
                                 63  D4 00037      CLRL    (R3)                          ; 0598
          53     0088            C2  9E 00039 2$:  MOVAB   136(R2), R3                   ; 0604
                                 63  D5 0003E      TSTL    (R3)                          ;
                                 0D  13 00040      BEQL    3$                            ;
                                 53  DD 00042      PUSHL   R3                            ; 0607
                 0084            C2  9F 00044      PUSHAB  132(R2)                       ;
      0000G  CF                  02  FB 00048      CALLS   #2, OPC$FREE_VM               ;
                                 63  D4 0004D      CLRL    (R3)                          ; 0608
                                 52  DD 0004F 3$:  PUSHL   R2                            ; 0613
      0000G  CF                  01  FB 00051      CALLS   #1, DEALLOCATE_DS             ;
                                     04 00056 4$:  RET                                   ; 0615

; Routine Size:  87 bytes,    Routine Base:  $CODE$ + 01FB


;  622          0616  1
;  623          0617  1 END                                     ! End of ALLOCATE
;  624          0618  0 ELUDOM



;                                 PSECT SUMMARY
;
;       Name                      Bytes                     Attributes
;
;  $CODE$                            594  NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)


;                            Library Statistics
;
;                                       -------- Symbols --------      Pages      Processing
;       File                            Total    Loaded   Percent      Mapped     Time
;
;  _$255$DUA28:[SYSLIB]LIB.L32;1         18619        3         0       1000      00:01.8
;  _$255$DUA28:[OPCOM.OBJ]OPCOMLIB.L32;1   633       48         7         43      00:00.8


; Information:   1
; Warnings:      0
; Errors:        0


;                                 COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:ALLOCATE/OBJ=OBJ$:ALLOCATE MSRC$:ALLOCATE/UPDATE=(ENH$:ALLOCATE)

; Size:          594 code + 0 data bytes
; Run Time:         00:14.9
; Elapsed Time:     00:53.6
```

```
; Lines/CPU Min:     2481
; Lexemes/CPU-Min: 17626
; Memory Used:  98 pages
; Compilation Complete
```

NPARSE
LIS

REQUEST
MAP

OPCOM

REPLY
MAP

NMLXFER
LIS

OPCCRASH
MAP

NMLV2STA
LIS

OPCOMLIB
B32

ALLOCATE
LIS

NMLZERO
LIS

OPCOMDEF
SDL

OPCOM
MAP

OPCDEFTMP
SDL

CANCEL
LIS