```
   SSSSSSSSSSS  YYY         YYY    SSSSSSSSSSS  LLL              OOOOOOOOO       AAAAAAAAA
   SSSSSSSSSSS  YYY         YYY    SSSSSSSSSSS  LLL              OOOOOOOOO       AAAAAAAAA
   SSSSSSSSSSS  YYY         YYY    SSSSSSSSSSS  LLL              OOOOOOOOO       AAAAAAAAA
SSS             YYY         YYY SSS             LLL           OOO         OOO   AAA         AAA
SSS             YYY         YYY SSS             LLL           OOO         OOO   AAA         AAA
SSS             YYY         YYY SSS             LLL           OOO         OOO   AAA         AAA
SSS                YYY   YYY    SSS             LLL           OOO         OOO   AAA         AAA
SSS                YYY   YYY    SSS             LLL           OOO         OOO   AAA         AAA
SSS                YYY   YYY    SSS             LLL           OOO         OOO   AAA         AAA
   SSSSSSSSS          YYY          SSSSSSSSS     LLL           OOO         OOO   AAA         AAA
   SSSSSSSSS          YYY          SSSSSSSSS     LLL           OOO         OOO   AAA         AAA
   SSSSSSSSS          YYY          SSSSSSSSS     LLL           OOO         OOO   AAA         AAA
            SSS       YYY                   SSS  LLL           OOO         OOO   AAAAAAAAAAAAAAA
            SSS       YYY                   SSS  LLL           OOO         OOO   AAAAAAAAAAAAAAA
            SSS       YYY                   SSS  LLL           OOO         OOO   AAAAAAAAAAAAAAA
            SSS       YYY                   SSS  LLL           OOO         OOO   AAA         AAA
            SSS       YYY                   SSS  LLL           OOO         OOO   AAA         AAA
            SSS       YYY                   SSS  LLL           OOO         OOO   AAA         AAA
SSSSSSSSSSS           YYY SSSSSSSSSSS     LLLLLLLLLLLLLLL        OOOOOOOOO     AAA         AAA
SSSSSSSSSSS           YYY SSSSSSSSSSS     LLLLLLLLLLLLLLL        OOOOOOOOO     AAA         AAA
SSSSSSSSSSS           YYY SSSSSSSSSSS     LLLLLLLLLLLLLLL        OOOOOOOOO     AAA         AAA
```

FILEID**LIOSUB790

```
LL          IIIIII     OOOOOO     SSSSSSSS  UU      UU  BBBBBBBB   77777777     999999     000000
LL          IIIIII     OOOOOO     SSSSSSSS  UU      UU  BBBBBBBB   77777777     999999     000000
LL            II     OO      OO  SS        UU      UU  BB      BB         77   99     99  00      00
LL            II     OO      OO  SS        UU      UU  BB      BB         77   99     99  00      00
LL            II     OO      OO  SS        UU      UU  BB      BB         77   99     99  00    0000
LL            II     OO      OO  SS        UU      UU  BB      BB         77   99     99  00    0000
LL            II     OO      OO    SSSSSS  UU      UU  BBBBBBBB       77     99999999  00  00  00
LL            II     OO      OO    SSSSSS  UU      UU  BBBBBBBB       77     99999999  00  00  00
LL            II     OO      OO          SS  UU      UU  BB      BB   77           99  0000    00
LL            II     OO      OO          SS  UU      UU  BB      BB   77           99  0000    00
LL            II     OO      OO          SS  UU      UU  BB      BB   77           99  00      00
LL            II     OO      OO          SS  UU      UU  BB      BB   77           99  00      00
LLLLLLLLLL  IIIIII     OOOOOO     SSSSSSSS  UUUUUUUUUU  BBBBBBBB   77         999999     000000
LLLLLLLLLL  IIIIII     OOOOOO     SSSSSSSS  UUUUUUUUUU  BBBBBBBB   77         999999     000000

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
LL            II             SS
LLLLLLLLLL  IIIIII     SSSSSSSS
LLLLLLLLLL  IIIIII     SSSSSSSS
```

Table of contents

(3) 137 PURGE DATAPATH

```
0000     1          .NOSHOW CONDITIONALS
0000     5
0000     9
0000    13
0000    15          .TITLE  LIOSUB790 - LOADABLE I/O SUBROUTINES
0000    17
0000    21
0000    22          .IDENT  'V04-000'
0000    23
0000    24 ;
0000    25 ;*****************************************************************************
0000    26 ;*                                                                           *
0000    27 ;*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                 *
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0000    43 ;*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                  *
0000    44 ;*                                                                           *
0000    45 ;*                                                                           *
0000    46 ;*****************************************************************************
0000    47 ;
0000    48 ;++
0000    49 ;
0000    50 ; FACILITY:
0000    51 ;
0000    52 ;       EXECUTIVE, I/O CONTROL ROUTINES
0000    53 ;
0000    54 ; ABSTRACT:
0000    55 ;
0000    56 ; I/O SUBROUTINES WHICH CONTAIN PROCESSOR DEPENDENCIES.
0000    57 ;
0000    58 ; AUTHOR:
0000    59 ;
0000    60 ;       N. KRONENBERG, JANUARY 12, 1979.
0000    61 ;
0000    62 ; MODIFIED BY:
0000    63 ;
0000    64 ;       V03-012 KDM0096         Kathleen D. Morse       27-Mar-1984
0000    65 ;               Add memory CSR scanning to IOC$PURGDATAP for MicroVAX I.
0000    66 ;               (All DMA MicroVAX I drivers should call this routine, just
0000    67 ;               before calling IOC$REQCOM.)
0000    68 ;
0000    69 ;       V03-011 KDM0081         Kathleen D. Morse       13-Sep-1983
0000    70 ;               Create a version for Micro-VAX I.
0000    71 ;
```

```
0000     72 ;       V03-010 TCM0004         Trudy C. Matthews       4-Jan-1982
0000     73 ;               Added 11/790-specific path to IOC$PURGDATAP.
0000     74 ;
0000     75 ;       V09     TCM0003         Trudy C. Matthews       9-Nov-1982
0000     76 ;               Added a .TITLE statement for LIOSUB790.
0000     77 ;
0000     78 ;       V08     TCM0002         Trudy C. Mathews        29-Jul-1981
0000     79 ;               Changed all "7ZZ"s to "730"s.
0000     80 ;
0000     81 ;       V07     TCM0001         Trudy C Matthews        28-Feb-1980
0000     82 ;               Changed IOC$PURGDATAP for NEBULA so that it logs
0000     83 ;               the Unibus Error Summary register itself when there
0000     84 ;               are Unibus errors reported.
0000     85 ;
0000     86 ;       V06     NPK0002         N. KRONENBERG           4-DEC-1979
0000     87 ;               REPLACED IOC$PURGDATAP FOR NEBULA
0000     88 ;
0000     89 ;       V05     NPK0001         N. KRONENBERG           23-AUG-1979
0000     90 ;               CORRECTED 11/750 CHECK FOR PURGE DONE.
0000     91 ;
0000     92 ;       V04     TCM0001         Trudy C. Matthews       3-Jul-1979
0000     93 ;       Modified IOC$PURGDATAP for NEBULA.
0000     94 ;
0000     95 ;--
```

```
                        0000     97 ;
                        0000     98 ; MACRO LIBRARY CALLS:
                        0000     99 ;
                        0000    100         $ADPDEF                         ; Define ADP offsets
                        0000    101         $CRBDEF                         ; Define CRB offsets
                        0000    102         $EMBETDEF                       ; Define error types.
                        0000    103         $EMBUEDEF                       ; Define Unibus Error buffer.
                        0000    104         $IDBDEF                         ; Define IDB offsets
                        0000    105         $PRDEF                          ; Define IPR'S
                        0000    106         $UBADEF                         ; Define UBA offsets
                        0000    107         $UBIDEF                         ; Define UBI offsets
                        0000    108         $UCBDEF                         ; Define UCB offsets
                        0000    109         $VECDEF                         ; Define CRB/VEC offsets
                        0000    110
                        0000    115
                        0000    120
                        0000    125
00000001                0000    127         C780_LIKE = 1
00000000                0000    128         C750_LIKE = 0
                        0000    130
                        0000    135
```

```
                        0000   137          .SBTTL  PURGE DATAPATH
                        0000   138 ;+
                        0000   139 ; IOC$PURGDATAP - PURGE DATAPATH
                        0000   140 ;
                        0000   141 ; This routine purges the caller's buffered datapath, and clears any
                        0000   142 ; datapath errors.  if there was a datapath error, this fact is
                        0000   143 ; returned to the caller.
                        0000   144 ;
                        0000   145 ; INPUTS:
                        0000   146 ;
                        0000   147 ;       R5 = UCB address
                        0000   148 ;
                        0000   149 ; OUTPUTS:
                        0000   150 ;
                        0000   151 ;       R0-R3 altered
                        0000   152 ;       Other registers preserved
                        0000   153 ;       R0 = low bit clear/set if transmission error/success
                        0000   154 ;       R1 = DPR contents after purge (for register dump by caller)
                        0000   155 ;       R2 = address of start of adapter map registers (for reg dump by caller)
                        0000   156 ;       R3 = CRB address
                        0000   157 ;-
                        0000   158
                  00000000   159          .PSECT  WIONONPAGED
                        0000   160
                        0000   161          .ENABL  LSB
                        0000   162
                        0000   163 IOC$PURGDATAP::                              ;
          10    BB      0000   165          PUSHR   #^M<R4>                     ; Save register
    53    24    A5      D0     0002   166          MOVL    UCB$L_CRB(R5),R3            ; Get CRB address
    52    38    B3      D0     0006   167          MOVL    @CRB$L_INTD+VEC$L_ADP(R3),R2 ; Get start of adapter register space
                        000A   168
          00    EF      000A   169          EXTZV   #VEC$V_DATAPATH,-           ; Extract datapath #
          05            000C   170                  #VEC$S_DATAPATH,-           ;  from CRB
       51    37    A3   000D   171                  CRB$L_INTD+VEC$B_DATAPATH(R3),R1
    54    40  A241      DE     0010   172          MOVAL   UBA$L_DPR(R2)[R1],R4        ; Get address of DPR
    64    01    1F      78     0015   173          ASHL    #UBA$V_DPR_BNE,#1,(R4)      ; Purge datapath
          51    64      D0     0019   174          MOVL    (R4),R1                     ; Get DPR contents
       08 51    1E      E1     001C   175          BBC     #UBA$V_DPR_XMTER,R1,20$ ; Branch if no error
    64    01    1E      78     0020   176          ASHL    #UBA$V_DPR_XMTER,#1,(R4) ; Clear error in DPR
          50    D4      0024   177          CLRL    R0                          ; Set to return transfer error
          03    11      0026   178          BRB     30$                         ; Join common code
       50 01    9A      0028   179 20$:     MOVZBL  #1,R0                       ; Set to return transfer success
    52    0800  C2      DE     002B   180 30$:     MOVAL   UBA$L_MAP(R2),R2            ; Return addr of 1st map register
                        0030   181
          10    BA      0030   182          POPR    #^M<R4>                     ; Restore register
                05      0032   183          RSB                                 ; Return
                        0033   185
                        0033   186
                        0033   214
                        0033   263
                        0033   297
                        0033   298          .DSABL  LSB
                        0033   299
                        0033   300          .END
```

```
C750_LIKE                       = 00000000
C780_LIKE                       = 00000001
CPU_TYPE                        = 00000004
CRB$L_INTD                      = 00000024
IOC$PORGDATAP                     00000000 RG    02
PR$_SID_TYP730                  = 00000003
PR$_SID_TYP750                  = 00000002
PR$_SID_TYP780                  = 00000001
PR$_SID_TYP790                  = 00000004
PR$_SID_TYPUV1                  = 00000007
UBA$L_DPR                       = 00000040
UBA$L_MAP                       = 00000800
UBA$V_DPR_BNE                   = 0000001F
UBA$V_DPR_XMTER                 = 0000001E
UCB$L_CRB                       = 00000024
VEC$B_DATAPATH                  = 00000013
VEC$L_ADP                       = 00000014
VEC$S_DATAPATH                  = 00000005
VEC$V_DATAPATH                  = 00000000
```

Psect synopsis

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
ABS	00000000 (0.)	01 (1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
WIONONPAGED	00000033 (51.)	02 (2.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC BYTE

Performance indicators

Phase	Page faults	CPU Time	Elapsed Time
Initialization	47	00:00:00.05	00:00:01.51
Command processing	140	00:00:00.57	00:00:04.28
Pass 1	276	00:00:05.04	00:00:18.70
Symbol table sort	0	00:00:00.77	00:00:02.65
Pass 2	43	00:00:00.98	00:00:06.54
Symbol table output	4	00:00:00.02	00:00:00.02
Psect synopsis output	2	00:00:00.02	00:00:00.01
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	514	00:00:07.45	00:00:33.72

```
The working set limit was 1350 pages.
44289 bytes (87 pages) of virtual memory were used to buffer the intermediate code.
There were 50 pages of symbol table space allocated to hold 773 non-local and 2 local symbols.
304 source lines were read in Pass 1, producing 13 object records in Pass 2.
17 pages of virtual memory were used to define 16 macros.
```

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

Macro library name                                Macros defined
------------------                                --------------
_$255$DUA28:[SYSLOA.OBJ]790DEF.MLB;1                         0
_$255$DUA28:[SYS.OBJ]LIB.MLB;1                               9
_$255$DUA28:[SYSLIB]STARLET.MLB;2                            4
TOTALS (all libraries)                                      13

864 GETS were required to define 13 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:LIOSUB790/OBJ=OBJ$:LIOSUB790 MSRC$:CPUSW790/UPDATE=(ENH$:CPUSW790)+MSRC$:LIOSUB/UPDATE=(ENH$:LIOSUB)+EXECML$/LIB+LIB$
```

LIOSUB750
LIS

MCHECKUV1
LIS

MCHECK730
LIS

MCHECK750
LIS

LIOSUB730
LIS

LIOSUB790
LIS

MCHECK780
LIS

MCF790
LIS

MCHECK790
LIS

LIOSUB780
LIS

LIOSUBUV1
LIS