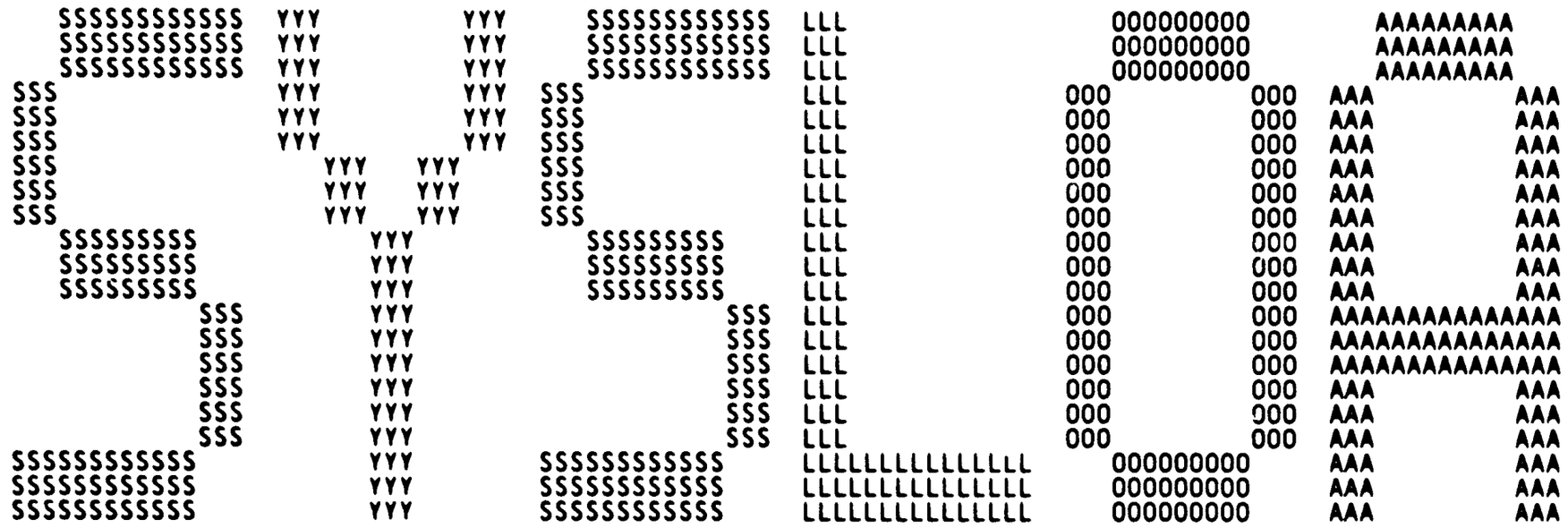
SSSSSSSSSSS YYY YYY SSSSSSSSSSS LLL 000000000 AAAAAAAAA
SSSSSSSSSSS YYY YYY SSSSSSSSSSS LLL 000000000 AAAAAAAAA
SSSSSSSSSSS YYY YYY SSSSSSSSSSS LLL 000000000 AAAAAAAAA
SSS YYY YYY SSS LLL 000 000 AAA AAA
SSS YYY YYY SSS LLL 000 000 AAA AAA
SSS YYY YYY SSS LLL 000 000 AAA AAA
SSS YYY YYY SSS LLL 000 000 AAA AAA
SSS YYY YYY SSS LLL 000 000 AAA AAA
SSS YYY YYY SSS LLL 000 000 AAA AAA
SSSSSSSSS YYY SSSSSSSSS LLL 000 000 AAA AAA
SSSSSSSSS YYY SSSSSSSSS LLL 000 000 AAA AAA
SSSSSSSSS YYY SSSSSSSSS LLL 000 000 AAA AAA
SSS YYY SSS LLL 000 000 AAAAAAAAAAAAAAA
SSS YYY SSS LLL 000 000 AAAAAAAAAAAAAAA
SSS YYY SSS LLL 000 000 AAAAAAAAAAAAAAA
SSS YYY SSS LLL 000 000 AAA AAA
SSS YYY SSS LLL 000 000 AAA AAA
SSS YYY SSS LLL 000 000 AAA AAA
SSSSSSSSSSS YYY SSSSSSSSSSS LLLLLLLLLLLLLLL 000000000 AAA AAA
SSSSSSSSSSS YYY SSSSSSSSSSS LLLLLLLLLLLLLLL 000000000 AAA AAA
SSSSSSSSSSS YYY SSSSSSSSSSS LLLLLLLLLLLLLLL 000000000 AAA AAA

**FILE**ID**LIOSUB790



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

LL              IIIIII      S:SSSSSS
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
```

```
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  $IONONPAGED
                                0000   160
                                0000   161          .ENABL  LSB
                                0000   162
                                0000   163 IOC$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