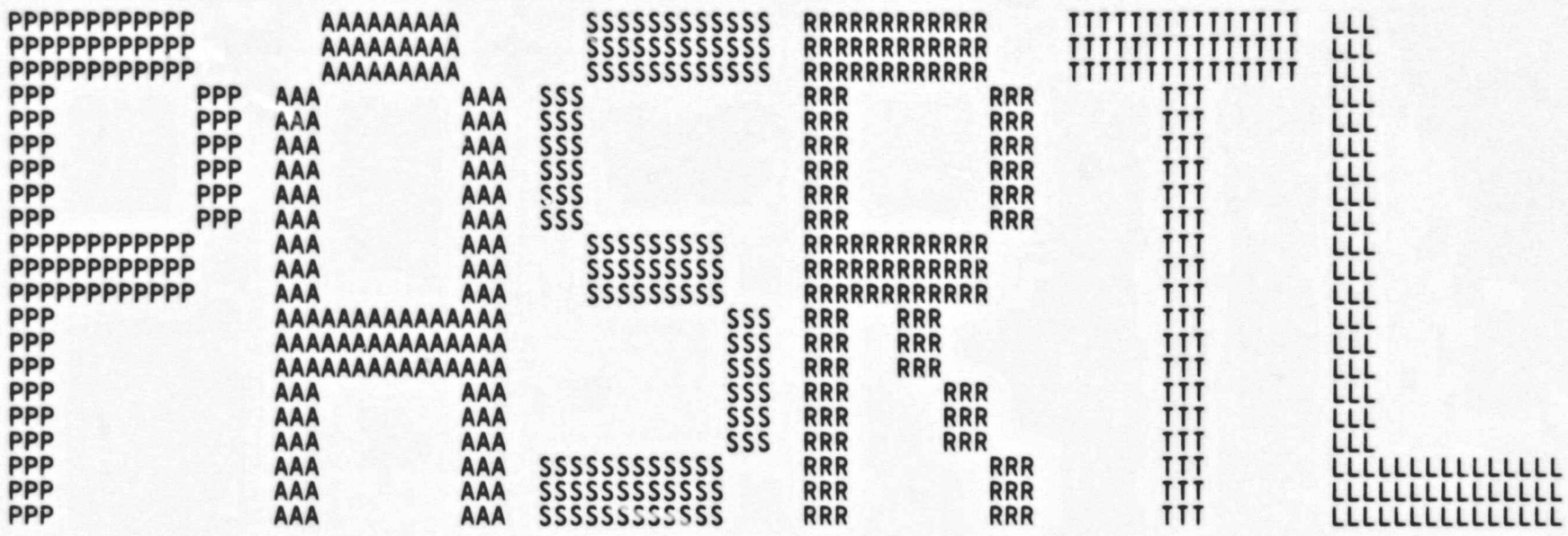
PPPPPPPPPPPP AAAAAAAAA SSSSSSSSSSS RRRRRRRRRRR TTTTTTTTTTTTTTT LLL
PPP PPP AAA AAA SSS RRR RRR TTT LLL
PPPPPPPPPPPP AAAAAAAAAAAAAAA SSS RRR RRR TTT LLL
PPP AAA AAA SSSSSSSSS RRRRRRRRRRR TTT LLL
PPP AAAAAAAAAAAAAAA SSS RRR RRR TTT LLL
PPP AAA AAA SSS RRR RRR TTT LLL
PPP AAA AAA SSSSSSSSSSS RRR RRR TTT LLLLLLLLLLLLLLL

FILEID**PASCLOCK2

```
PPPPPPPP      AAAAAA      SSSSSSSS    CCCCCCCC  LL          OOOOOO      CCCCCCCC  KK      KK    222222
PPPPPPPP      AAAAAA      SSSSSSSS    CCCCCCCC  LL          OOOOOO      CCCCCCCC  KK      KK    222222
PP        PP  AA    AA    SS          CC        LL          OO    OO    CC        KK      KK  22      22
PP        PP  AA    AA    SS          CC        LL          OO    OO    CC        KK      KK  22      22
PP        PP  AA    AA    SS          CC        LL          OO    OO    CC        KK    KK            22
PP        PP  AA    AA    SS          CC        LL          OO    OO    CC        KK    KK            22
PPPPPPPP      AA    AA      SSSSSS    CC        LL          OO    OO    CC        KKKKKK            22
PPPPPPPP      AA    AA      SSSSSS    CC        LL          OO    OO    CC        KKKKKK          22
PP            AAAAAAAAAA          SS  CC        LL          OO    OO    CC        KK    KK      22
PP            AAAAAAAAAA          SS  CC        LL          OO    OO    CC        KK    KK      22
PP            AA    AA            SS  CC        LL          OO    OO    CC        KK      KK  22          ....
PP            AA    AA            SS  CC        LL          OO    OO    CC        KK      KK  22          ....
PP            AA    AA    SSSSSSSS    CCCCCCCC  LLLLLLLLLL    OOOOOO      CCCCCCCC  KK      KK  2222222222  ....
PP            AA    AA    SSSSSSSS    CCCCCCCC  LLLLLLLLLL    OOOOOO      CCCCCCCC  KK      KK  2222222222  ....

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

```
0000     1          .TITLE  PAS$CLOCK2 - Return process CPU time in msec
0000     2          .IDENT  /1-002/                 ; File: PASCLOCK2.MAR Edit: DG1002
0000     3
0000     4 ;
0000     5 ;*****************************************************************************
0000     6 ;*                                                                           *
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0000    23 ;*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                  *
0000    24 ;*                                                                           *
0000    25 ;*                                                                           *
0000    26 ;*****************************************************************************
0000    27 ;
0000    28
0000    29 ;++
0000    30 ; FACILITY: Pascal Language Support
0000    31 ;
0000    32 ; ABSTRACT:
0000    33 ;
0000    34 ;       This module contains PAS$CLOCK2 which implements the Pascal
0000    35 ;       CLOCK function.
0000    36 ;
0000    37 ; ENVIRONMENT: User mode, AST Reentrant
0000    38 ;
0000    39 ; AUTHOR: Steven B. Lionel, CREATION DATE: 6-July-1981
0000    40 ;
0000    41 ; MODIFIED BY:
0000    42 ;
0000    43 ; 1-001 - Original. SBL 6-July-1981
0000    44 ; 1-002 - Use $GETJPIW to ensure synchronous operation.  DG 31-Oct-1983
0000    45 ;--
```

```
                        .SBTTL  DECLARATIONS
                ;
                ; LIBRARY MACRO CALLS:
                ;

                $JPIDEF                         ; JPI$_ symbols

                ;
                ; EXTERNAL DECLARATIONS:
                ;
                        .DSABL  GBL             ; Force all external symbols to be declared
                        .EXTRN  LIB$GET_EF      ; Get event flag number
                        .EXTRN  LIB$FREE_EF     ; Free event flag number
                        .EXTRN  LIB$SIGNAL      ; Signal error
                ;
                ; MACROS:
                ;
                        NONE
                ;
                ; EQUATED SYMBOLS:
                ;
                        NONE
                ;
                ; OWN STORAGE:
                ;
                        NONE
                ;
                ; PSECT DECLARATIONS:
                ;
00000000                .PSECT _PAS$CODE PIC, USR, CON, REL, LCL, SHR, -
                                EXE, RD, NOWRT, LONG
```

```
                                0000     80          .SBTTL  PAS$CLOCK2 - Return process CPU time in msec
                                0000     81 ;++
                                0000     82 ; FUNCTIONAL DESCRIPTION:
                                0000     83 ;
                                0000     84 ;       This routine returns the process's elapsed CPU time in
                                0000     85 ;       milliseconds as the function value.
                                0000     86 ;
                                0000     87 ; CALLING SEQUENCE:
                                0000     88 ;
                                0000     89 ;       cpu_time.wl.v = PAS$CLOCK2 ()
                                0000     90 ;
                                0000     91 ; FORMAL PARAMETERS:
                                0000     92 ;
                                0000     93 ;       NONE
                                0000     94 ;
                                0000     95 ; IMPLICIT INPUTS:
                                0000     96 ;
                                0000     97 ;       NONE
                                0000     98 ;
                                0000     99 ; IMPLICIT OUTPUTS:
                                0000    100 ;
                                0000    101 ;       NONE
                                0000    102 ;
                                0000    103 ; ROUTINE VALUE:
                                0000    104 ;
                                0000    105 ;       The current process's elapsed CPU time in milliseconds.
                                0000    106 ;
                                0000    107 ; SIDE EFFECTS:
                                0000    108 ;
                                0000    109 ;       Allocates and deallocates a local event flag number.
                                0000    110 ;
                                0000    111 ;       SS$_INTOVF, integer overflow, if the CPU time in milliseconds is
                                0000    112 ;       greater than 2**31-1
                                0000    113 ;
                                0000    114 ;       If LIB$GET_EF or $GETJPI returns an error status, that status
                                0000    115 ;       is signalled.  This should not occur in normal operation.
                                0000    116 ;--
                                0000    117
                        4000    0000    118         .ENTRY  PAS$CLOCK2, ^M<IV>      ; Entry point
                                0002    119
                5E      18      C2      0002    120         SUBL2   #24, SP                 ; Make room for EFN, value and item list
                  14    AE      9F      0005    121         PUSHAB  20(SP)                  ; Address of EFN
00000000'GF             01      FB      0008    122         CALLS   #1, G^LIB$GET_EF        ; Get an event flag number
                  3B    50      E9      000F    123         BLBC    R0,ERROR                ; Skip if error
                6E      04      B0      0012    124         MOVW    #4, 0(SP)               ; Buffer length
 02 AE          0407    8F      B0      0015    125         MOVW    #JPI$_CPUTIM, 2(SP)     ; Item code
   04 AE          10    AE      9E      001B    126         MOVAB   16(SP), 4(SP)           ; Buffer address
                  08    AE      7C      0020    127         CLRQ    8(SP)                   ; No return length address
                                        0023    128                                         ; End of list marker of zero
                50      5E      D0      0023    129         MOVL    SP, R0                  ; Save item list address
                                        0026    130         $GETJPIW_S EFN=20(R0),ITMLST=(R0); Call $GETJPI
                  10    50      E9      003A    131         BLBC    R0, ERROR               ; Skip if error
                  14    AE      9F      003D    132         PUSHAB  20(SP)                  ; Address of EFN
00000000'GF             01      FB      0040    133         CALLS   #1, G^LIB$FREE_EF       ; Free the event flag number
 50     10      AE      0A      C5      0047    134         MULL3   #10, 16(SP), R0         ; $GETJPI returns CPU time in
                                        004C    135                                         ; 10 msec units, convert to 1 msec.
                                        004C    136                                         ; This operation might overflow.
```

```
                        004C   137
                 04     004C   138          RET                             ; Return to caller
                        004D   139
                        004D   140 ;+
                        004D   141 ; Come here with error code in R0 if LIB$GET_EF or $GETJPI fails.
                        004D   142 ;-
                 50     DD     004D   143 ERROR:  PUSHL   R0                  ; Signal error status
00000000'GF      01     FB     004F   144          CALLS   #1, G^LIB$SIGNAL
                 50     D4     0056   145          CLRL    R0                 ; Return zero if continue
                 04     0058   146          RET                             ; Return to caller
                        0059   147
                        0059   148          .END                            ; End of module PAS$CLOCK2
```

```
$$T1                    = 00000001
ERROR                     0000004D R     02
JPI$_CPUTIM             = 00000407
LIB$FREE_EF               ********   X   00
LIB$GET_EF                ********   X   00
LIB$SIGNAL                ********   X   00
PAS$CLOCK2                00000000 RG    02
SYS$GETJPIW               ********  G    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
ABS	00000000 (0.)	01 (1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
_PAS$CODE	00000059 (89.)	02 (2.)	PIC USR CON REL LCL SHR EXE RD NOWRT NOVEC LONG

Performance indicators

Phase	Page faults	CPU Time	Elapsed Time
Initialization	10	00:00:00.08	00:00:00.50
Command processing	70	00:00:00.63	00:00:04.34
Pass 1	114	00:00:01.71	00:00:06.73
Symbol table sort	0	00:00:00.11	00:00:00.85
Pass 2	40	00:00:00.44	00:00:02.21
Symbol table output	2	00:00:00.02	00:00:00.02
Psect synopsis output	3	00:00:00.02	00:00:00.06
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	241	00:00:03.02	00:00:14.72

```
The working set limit was 900 pages.
7442 bytes (15 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 116 non-local and 0 local symbols.
148 source lines were read in Pass 1, producing 13 object records in Pass 2.
11 pages of virtual memory were used to define 10 macros.
```

Macro library statistics

Macro library name	Macros defined
_255DUA28:[SYSLIB]STARLET.MLB;2	7

```
200 GETS were required to define 7 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS$:PASCLOCK2/OBJ=OBJ$:PASCLOCK2 MSRC$:PASCLOCK2/UPDATE=(ENH$:PASCLOCK2)
```

PASRT1
LIS

PASMACROS
REQ

PASFCB
SDL

PASPROLOG
REQ

PASOPEDEF
REQ

PASABSL
LIS

PASCARD2
LIS

PASRTL

PASBUGCOD
REQ

PASCLOSE2
LIS

PASRT2
LIS

PASRT3
LIS

PASRTL
MAP

PASIO4
LIS

PASEXTERN
REQ

PASKDB
REQ

PASPFD
REQ

PASCONVER
LIS

PASLIB
REQ

PASPFV
REQ

PASBIN
LIS

PASCLOCK2
LIS

PASRT4
LIS