```
FFFFFFFFFF      000000      RRRRRRR       SSSSSSSS    TTTTTTTTTT      000000      PPPPPPPP
FFFFFFFFFF      000000      RRRRRRRR      SSSSSSSS    TTTTTTTTTT      000000      PPPPPPPP
FF            00    00      RR    RR    SS              TT         00    00    PP      PP
FF            00    00      RR    RR    SS              TT         00    00    PP      PP
FF            00    00      RR    RR    SS              TT         00    00    PP      PP
FFFFFFFF      00    00      RRRRRRRR      SSSSS         TT         00    00    PPPPPPPP
FFFFFFF       00    00      RRRRRRR       SSSSSS        TT         00    00    PPPPPPPP
FF            00    00      RR  RR             SS       TT         00    00    PP
FF            00    00      RR   RR            SS       TT         00    00    PP
FF            00    00      RR    RR           SS       TT         00    00    PP
FF            00    00      RR    RR           SS       TT         00    00    PP
FF            000000        RR    RR    SSSSSSSS       TT          000000      PP           ....
FF            000000        RR    RR    SSSSSSSS       TT          000000      PP           ....
                                                                                            ....


LL                 IIIIII       SSSSSSSS
LL                 IIIIII       SSSSSSSS
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
```

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```
    1    0001  0 MODULE FOR$STOP (        ! FORTRAN STOP statement
    2    0002  0          IDENT = '1-004' ! File: FORSTOP.B32 Edit:DGP1004
    3    0003  0                ) =
    4    0004  1 BEGIN
    5    0005  1
    6    0006  1 !
    7    0007  1 !*******************************************************************
    8    0008  1 !*                                                                 *
    9    0009  1 !*   COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                       *
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   21    0021  1 !*   AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT *
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   23    0023  1 !*                                                                 *
   24    0024  1 !*   DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS *
   25    0025  1 !*   SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.       *
   26    0026  1 !*                                                                 *
   27    0027  1 !*                                                                 *
   28    0028  1 !*******************************************************************
   29    0029  1 !
   30    0030  1
   31    0031  1 !++
   32    0032  1 ! FACILITY:  FORTRAN Support Library
   33    0033  1 !
   34    0034  1 ! ABSTRACT:
   35    0035  1 !
   36    0036  1 !         Output optional string and suspend process
   37    0037  1 !
   38    0038  1 ! ENVIRONMENT:  User Mode - AST re-entrant
   39    0039  1 !
   40    0040  1 ! AUTHOR: Thomas N. Hastings, CREATION DATE:  8-Aug-1977
   41    0041  1 !
   42    0042  1 ! MODIFIED BY:
   43    0043  1 !
   44    0044  1 !         Thomas N. Hastings, 8-Aug-1977: VERSION 0
   45    0045  1 !  01     - original
   46    0046  1 !  0-3    - Print FORTRAN STOP if no arg.  TNH 13-Dec-77
   47    0047  1 !  0-04   - Change to STARLET library.  DGP 20-Apr-78
   48    0048  1 !  0-05   - Change REQUIRE files for VAX system build.  DGP 28-Apr-78
   49    0049  1 !  0-06   - Change STARLET to RTLSTARLE to avoid conflicts.  DGP 1-May-78
   50    0050  1 !  0-07   - Make PIC.  TNH 30-June-78
   51    0051  1 !  0-08   - Change file name to FORSTOP.B32, and change the name of the
   52    0052  1 !             REQUIRE file similarly.  JBS 14-NOV-78
   53    0053  1 !  1-001  - Update version number and copyright notice.  JBS 16-NOV-78
   54    0054  1 !  1-002  - Return a value to keep BLISS compiler happy.  JBS 27-NOV-78
   55    0055  1 !  1-003  - Change REQUIRE file names from FOR... to OTS...  JSB 06-DEC-78
   56    0056  1 !  1-004  - Move ACTUALCOUNT into body of routine and initialize the class
   57    0057  1 !             and d_type of default descriptor.  DGP 28-Oct-1981
```

; 58   0058 1 !--

```
 60    0059  1 !
 61    0060  1 ! TABLE OF CONTENTS:
 62    0061  1 !
 63    0062  1
 64    0063  1 FORWARD ROUTINE
 65    0064  1         FOR$STOP;                        ! STOP statement
 66    0065  1
 67    0066  1 !
 68    0067  1 ! INCLUDE FILES:
 69    0068  1 !
 70    0069  1 REQUIRE 'RTLIN:OTSMAC';                  ! Define macros
 71    0263  1 REQUIRE 'RTLIN:RTLPSECT';                ! Define DECLARE_PSECTS macro
 72    0358  1 LIBRARY 'RTLSTARLE';                     ! STARLET library for macros and symbols
 73    0359  1 !
 74    0360  1 ! MACROS:
 75    0361  1 !
 76    0362  1
 77    0363  1 !
 78    0364  1 ! EQUATED SYMBOLS:
 79    0365  1 !
 80    0366  1
 81    0367  1 !
 82    0368  1 ! PSECT DECLARATIONS:
 83    0369  1 !
 84    0370  1
 85    0371  1         DECLARE_PSECTS (FOR);            ! declare PSECTs for FOR$ facility
 86    0372  1
 87    0373  1 !
 88    0374  1 ! OWN STORAGE:
 89    0375  1 !
 90    0376  1
 91    0377  1 !
 92    0378  1 ! EXTERNAL REFERENCES:
 93    0379  1 !
 94    0380  1
 95    0381  1 EXTERNAL ROUTINE
 96    0382  1         LIB$PUT_OUTPUT: NOVALUE ADDRESSING_MODE(GENERAL); ! Output on device $OUTPUT
```

```
  98    0383  1  GLOBAL ROUTINE FOR$STOP (          ! FORTRAN STOP statement
  99    0384  1         MESSAGE_DSC_ADR)            ! Adr. of optional string descriptor to output
 100    0385  1         =                          ! Value returned is $SUSPND  completion code
 101    0386  1  !++
 102    0387  1  ! FUNCTIONAL DESCRIPTION:
 103    0388  1  !
 104    0389  1  !     FORTRAN STOP outputs an optional string on device $OUTPUT
 105    0390  1  !     and calls $EXIT with a success completion status.
 106    0391  1  !     If no argument is present, 'FORTRAN STOP' is printed.
 107    0392  1  !
 108    0393  1  ! FORMAL PARAMETERS:
 109    0394  1  !
 110    0395  1  !     message_dsc_adr.rt.dx             ! Adr. of optional string descriptor to output
 111    0396  1  !
 112    0397  1  ! IMPLICIT INPUTS:
 113    0398  1  !
 114    0399  1  !     Logical device assignment for $OUTPUT (see LIB$PUT_OUTPUT)
 115    0400  1  !
 116    0401  1  ! IMPLICIT OUTPUTS:
 117    0402  1  !
 118    0403  1  !     NONE
 119    0404  1  !
 120    0405  1  ! COMPLETION CODES:
 121    0406  1  !
 122    0407  1  !     NONE
 123    0408  1  !
 124    0409  1  ! SIDE EFFECTS:
 125    0410  1  !
 126    0411  1  !     Outputs message on device $OUTPUT and calls $EXIT with success code 1.
 127    0412  1  !
 128    0413  1  !--
 129    0414  1
 130    0415  2     BEGIN
 131    0416  2
 132    0417  2     BUILTIN
 133    0418  2        ACTUALCOUNT;                 ! Return the number of actual parameters
 134    0419  2     LOCAL
 135    0420  2        DESCR: DSC$DESCRIPTOR;            ! descriptor (needed to be PIC)
 136    0421  2
 137    0422  2     !+
 138    0423  2     ! Output optional message on device $OUTPUT, if arg present.
 139    0424  2     !-
 140    0425  2
 141    0426  2     IF ACTUALCOUNT() GEQ 1
 142    0427  2     THEN
 143    0428  2        LIB$PUT_OUTPUT (.MESSAGE_DSC_ADR)
 144    0429  2     ELSE
 145    0430  3        BEGIN
 146    0431  3        DESCR[DSC$B_CLASS] = DSC$K_CLASS_S;
 147    0432  3        DESCR[DSC$B_DTYPE] = DSC$K_DTYPE_T;
 148    0433  3        DESCR[DSC$W_LENGTH] = 12;
 149    0434  3        DESCR[DSC$A_POINTER] = UPLIT ('FORTRAN STOP');
 150    0435  3        LIB$PUT_OUTPUT (DESCR);
 151    0436  2        END;
 152    0437  2
 153    0438  2
 154    0439  2     !+
```

```
;  155        0440  2      ! EXIT with success completion status code of 1.
;  156        0441  2      !-
;  157        0442  2
;  158        0443  3      $EXIT (CODE=1)
;  159        0444  1      END;                              ! End of routine FOR$STOP


                                                    .TITLE   FOR$STOP
                                                    .IDENT   \1-004\

                                                    .PSECT   _FOR$CODE,NOWRT,  SHR, PIC,2

            50 4F 54 53 20 4E 41 52 54 52 4F 46 00000 P.AAA:  .ASCII   \FORTRAN STOP\

                                                    .EXTRN   LIB$PUT_OUTPUT, SYS$EXIT

                                  0000 00000        .ENTRY   FOR$STOP, Save nothing        ; 0383
                          5E      08  C2 00002       SUBL2    #8, SP                        ; 0426
                                  6C  95 00005       TSTB     (AP)
                                  05  13 00007       BEQL     1$                            ; 0428
                          04      AC  DD 00009       PUSHL    MESSAGE_DSC_ADR
                                  0E  11 0000C       BRB      2$
                   6E 010E000C    8F  D0 0000E 1$:   MOVL     #17694732, DESCR              ; 0433
            04       AE        DC AF  9E 00015       MOVAB    P.AAA, DESCR+4                ; 0434
                          5E      DD 0001A           PUSHL    SP                            ; 0435
        00000000G 00            01  FB 0001C 2$:     CALLS    #1, LIB$PUT_OUTPUT
                                  01  DD 00023       PUSHL    #1                            ; 0443
        00000000G 00            01  FB 00025         CALLS    #1, SYS$EXIT                  ; 0444
                                  04 0002C           RET

; Routine Size:  45 bytes,    Routine Base:  _FOR$CODE + 000C


;  160        0445  1 END                          ! End of module FOR$STOP
;  161        0446  0 ELUDOM




;                      PSECT SUMMARY
;
;      Name                      Bytes                      Attributes
;
; _FOR$CODE                       57  NOVEC,NOWRT,  RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)



;                      Library Statistics
;
;                              --------- Symbols ---------     Pages       Processing
;        File                  Total   Loaded   Percent       Mapped       Time
;
; _$255$DUA28:[SYSLIB]STARLET.L32;1   9776        8         0          581        00:01.0
```

I 2
16-Sep-1984 00:45:46   VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:32:45   [FORRTL.SRC]FORSTOP.B32;1

```
;                            COMMAND QUALIFIERS

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

; Size:          45 code + 12 data bytes
; Run Time:         00:04.4
; Elapsed Time:     00:18.5
; Lines/CPU Min:     6054
; Lexemes/CPU-Min: 22656
; Memory Used:  49 pages
; Compilation Complete
```