


```

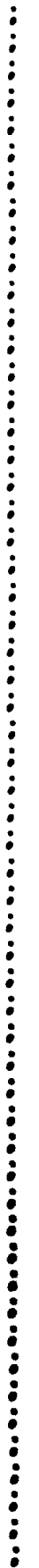
FFFFFFFFF  000000  RRRRRRRR  RRRRRRRR  EEEEEEEEE  AAAAAA  DDDDDDDD  SSSSSSSS  UU  UU
FFFFFFFFF  000000  RRRRRRRR  RRRRRRRR  EEEEEEEEE  AAAAAA  DDDDDDDD  SSSSSSSS  UU  UU
FF          00      00  RR          RR  RR          RR  EE          AA      AA  DD      DD  SS          UU  UU
FF          00      00  RR          RR  RR          RR  EE          AA      AA  DD      DD  SS          UU  UU
FF          00      00  RR          RR  RR          RR  EE          AA      AA  DD      DD  SS          UU  UU
FF          00      00  RR          RR  RR          RR  EE          AA      AA  DD      DD  SS          UU  UU
FFFFFFFFF  00      00  RRRRRRRR  RRRRRRRR  EEEEEEEEE  AA      AA  DD      DD  SSSSSS  UU  UU
FFFFFFFFF  00      00  RRRRRRRR  RRRRRRRR  EEEEEEEEE  AA      AA  DD      DD  SSSSSS  UU  UU
FF          00      00  RR  RR      RR  RR      EE          AAAAAAAAAA  DD      DD  SS          UU  UU
FF          00      00  RR  RR      RR  RR      EE          AAAAAAAAAA  DD      DD  SS          UU  UU
FF          00      00  RR  RR      RR  RR      EE          AA      AA  DD      DD  SS          UU  UU
FF          00      00  RR  RR      RR  RR      EE          AA      AA  DD      DD  SS          UU  UU
FF          00      00  RR  RR      RR  RR      EE          AA      AA  DD      DD  SS          UU  UU
FF          00      00  RR  RR      RR  RR      EE          AA      AA  DDDDDDDD  SSSSSSSS  UUUUUUUUU  ....
FF          000000  RR          RR  RR          RR  EEEEEEEEE  AA      AA  DDDDDDDD  SSSSSSSS  UUUUUUUUU  ....
FF          000000  RR          RR  RR          RR  EEEEEEEEE  AA      AA  DDDDDDDD  SSSSSSSS  UUUUUUUUU  ....

```

```

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
LLLLLLLLLLL IIIIII  SSSSSSSS
LLLLLLLLLLL IIIIII  SSSSSSSS

```




```
0000 1 .TITLE FOR$READ_SU - entry point for FORTRAN READ SEQUENTIAL UNFORMATTED
0000 2 .IDENT /1-012/ File: FORREADSU.MAR Edit: JAW1012
0000 3
0000 4 *****
0000 5
0000 6 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
0000 7 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS. *
0000 8 * ALL RIGHTS RESERVED. *
0000 9
0000 10 * THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED *
0000 11 * ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE *
0000 12 * INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER *
0000 13 * COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY *
0000 14 * OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY *
0000 15 * TRANSFERRED. *
0000 16
0000 17 * THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE *
0000 18 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT *
0000 19 * CORPORATION. *
0000 20
0000 21 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS *
0000 22 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL. *
0000 23
0000 24
0000 25 *****
0000 26
0000 27
0000 28 ++
0000 29 FACILITY: FORTRAN Support Library - user callable
0000 30
0000 31 ABSTRACT:
0000 32
0000 33 This module contains the entry point for the FORTRAN
0000 34 READ SEQUENTIAL UNFORMATTED I/O statement. It is simply
0000 35 a call to FOR$$IO_BEG with bits in R0 which describe the
0000 36 parameter list. FOR$$IO_BEG interprets the parameters.
0000 37
0000 38 MAINTENANCE NOTE:
0000 39 The transfer vector (RTLVECTOR+ALLGBL) must have the following:
0000 40
0000 41 .TRANSFER FOR$READ_SU
0000 42 .MASK FOR$$IO_BEG
0000 43 BRW FOR$READ_SU+2
0000 44
0000 45 This puts the correct mask in entry vector, that is FOR$$IO_BEG entry mask.
0000 46 Furthermore this module must only use R0 and R1
0000 47 since any other register might not be in the entry mask for FOR$$IO_BEG.
0000 48
0000 49 ENVIRONMENT: User access mode; mixture of AST level or not
0000 50
0000 51 AUTHOR: Richard B. Grove, CREATION DATE: 28-May-78
0000 52
0000 53 MODIFIED BY:
0000 54 T. Hastings, 29-July-78
```

```

0000 56      .SBTTL HISTORY      ; Detailed Current Edit History
0000 57
0000 58
0000 59 : Edit History for Version 1
0000 60 :
0000 61 : 0-10 - Add comment about vectors. TNH 23-June-78
0000 62 : 0-12 - Pass arg in R0, not ROR, add comments. TNH 29-July-78
0000 63 : 1-001 - Update version number and copyright notice. JBS 16-NOV-78
0000 64 : 1-002 - Change statement type symbols to be LUB$K... JBS 07-DEC-78
0000 65 : 1-003 - Change statement type symbols to be ISB$K... JBS 11-DEC-78
0000 66 : 1-004 - Add " " to the PSECT directive. JBS 22-DEC-78
0000 67 : 1-005 - Add FOR$READ_KF, FOR$READ_KO, FOR$REWRITE_SF, FOR$REWRITE_SO,
0000 68 : FOR$READ_IF, FOR$READ_IO, FOR$WRITE_IF, FOR$WRITE_IO,
0000 69 : FOR$READ_KU, FOR$REWRITE_SU,
0000 70 : SBL 2-May-1979
0000 71 : 1-006 - Remove all entry points that need object time formatting,
0000 72 : putting them in FOR$ENTRY_OBJ so that we can arrange to
0000 73 : load the format compiler only when it is needed.
0000 74 : JBS 26-JUN-1979
0000 75 : 1-007 - Remove entry point FOR$ENCODE_MF; we will code a new module
0000 76 : for it and FOR$$IO_BEG, to see how much I/O initiation time
0000 77 : improves. JBS 02-JUL-1979
0000 78 : 1-008 - Do likewise for FOR$READ_DU and FOR$WRITE DU. JBS 03-JUL-1979
0000 79 : 1-009 - Remove all entry points except FOR$READ_SO; each of the
0000 80 : others gets its own module so we can selectively load
0000 81 : the necessary UDF and REC modules. JBS 09-JUL-1979
0000 82 : 1-010 - Correct a typo in the references to REC level.
0000 83 : JBS 12-JUL-1979
0000 84 : 1-011 - New parameter format for FOR$$IO_BEG. SBL 5-Dec-1979
0000 85 : 1-012 - Change BRW FOR$$IO_BEG+2 to JMP G^FOR$$IO_BEG+2. JAW 21-Feb-1981
  
```

```

0000 87      .SBTTL  DECLARATIONS
0000 88
0000 89      :
0000 90      : INCLUDE FILES:
0000 91      :
0000 92
0000 93      $FORPAR      : Define inter-module FORTRAN symbols
0000 94      $ISBDEF      : Define statement type symbols
0000 95
0000 96      :
0000 97      : EXTERNAL SYMBOLS:
0000 98      :
0000 99
0000 100     .DSABL  GBL      : Declare all external symbols
0000 101     .EXTRN  FOR$$IO_BEG      : common I/O statement processing
0000 102     :+
0000 103     : The following references are to make sure the necessary UDF and REC
0000 104     : modules are loaded. These are the routines which are called through
0000 105     : the dispatch tables in FOR$$DISPAT.
0000 106     :-
0000 107     .EXTRN  FOR$$UDF_RU0, FOR$$UDF_RU1, FOR$$UDF_RU9
0000 108     .EXTRN  FOR$$REC_RSU0, FOR$$REC_RSU1, FOR$$REC_RSU9
0000 109
0000 110     :
0000 111     : MACROS:
0000 112     :
0000 113     : NONE
0000 114     :
0000 115     : PSECT DECLARATIONS:
0000 116     :
0000 117
00000000 118     .PSECT  _FOR$CODE PIC,USR,CON,REL,LCL,SHR,EXE,RD,NOWRT,LONG
0000 119
0000 120     :
0000 121     : EQUATED SYMBOLS:
0000 122     :
0000 123
0000 124
0000 125     :
0000 126     : OWN STORAGE:
0000 127     :
0000 128     : NONE
0000 129     :
  
```

```

0000 131          .SBTTL  FOR$READ_SU - READ Sequential UNFORMATTED
0000 132
0000 133 :++
0000 134 : FUNCTIONAL DESCRIPTION:
0000 135 :
0000 136 :     Initialize the FORTRAN I/O system to perform
0000 137 :     a READ sequential unformatted I/O statement.
0000 138 :
0000 139 : CALLING SEQUENCE:
0000 140 :
0000 141 :     CALL FOR$READ_SU (unit.rl.v,
0000 142 :                     [, err_adr.j.r [, end_adr.j.r]])
0000 143 :
0000 144 : INPUT PARAMETERS:
0000 145 :
0000 146 :     unit.rl.v           logical unit number
0000 147 :     [err_adr.j.r]      optional ERR= address
0000 148 :     [end_adr.j.r]     optional END= address
0000 149 :
0000 150 : IMPLICIT INPUTS:
0000 151 :
0000 152 :     NONE except those used by FOR$$IO_BEG.
0000 153 :
0000 154 : OUTPUT PARAMETERS:
0000 155 :
0000 156 :     NONE
0000 157 :
0000 158 : IMPLICIT OUTPUTS:
0000 159 :
0000 160 :     NONE except those left by FOR$$IO_BEG.
0000 161 :
0000 162 : COMPLETION CODES:
0000 163 :
0000 164 :     NONE
0000 165 :
0000 166 : SIDE EFFECTS:
0000 167 :
0000 168 :     NONE except those of FOR$$IO_BEG.
0000 169 :
0000 170 :--
0000 171 :
0000 172 FOR$READ_SU:: .MASK  FOR$$IO_BEG
50 04 0000' 0002 MOVZBL #ISB$K ST TY RSD, R0 ; Statement type
00000002'GF 17 0005 JMP G^FOR$$IO_BEG+2 ; branch past call mask
000B 175
000B 176
000B 177          .END
  
```

FOR\$READ_SU
Symbol table

B 2

- entry point for FORTRAN READ SEQUENTIAL 16-SEP-1984 00:00:40 VAX/VMS Macro V04-00 Page 5
6-SEP-1984 10:59:38 [FORRTL.SRC]FORREADSU.MAR;1 (4)

```
FOR$$IO_BEG          ***** X 00
FOR$$REC_RSU0       ***** X 00
FOR$$REC_RSU1       ***** X 00
FOR$$REC_RSU9       ***** X 00
FOR$$UDF_RU0        ***** X 00
FOR$$UDF_RU1        ***** X 00
FOR$$UDF_RU9        ***** X 00
FOR$READ_SU         00000000 RG 01
ISB$K_ST_TY_RSU    = 00000004
```

+-----+
! Psect synopsis !
+-----+

PSECT name	Allocation	PSECT No.	Attributes													
ABS	00000000 (0.)	00 (0.)	NOPIC	USR	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE			
_FOR\$CODE	0000000B (11.)	01 (1.)	PIC	USR	CON	REL	LCL	SHR	EXE	RD	NOWRT	NOVEC	LONG			

+-----+
! Performance indicators !
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	35	00:00:00.09	00:00:00.74
Command processing	131	00:00:00.63	00:00:06.03
Pass 1	124	00:00:01.22	00:00:05.47
Symbol table sort	0	00:00:00.19	00:00:00.43
Pass 2	46	00:00:00.50	00:00:02.19
Symbol table output	3	00:00:00.02	00:00:00.45
Psect synopsis output	2	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	343	00:00:02.69	00:00:15.70

The working set limit was 1050 pages.
6679 bytes (14 pages) of virtual memory were used to buffer the intermediate code.
There were 20 pages of symbol table space allocated to hold 187 non-local and 0 local symbols.
177 source lines were read in Pass 1, producing 8 object records in Pass 2.
9 pages of virtual memory were used to define 2 macros.

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

Macro library name	Macros defined
_\$255\$DUA28:[FORRTL.OBJ]FORRTL.MLB;1	2
-\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0
TOTALS (all libraries)	2

183 GETS were required to define 2 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS\$:FORREADSU/OBJ=OBJ\$:FORREADSU MSRC\$:FORREADSU/UPDATE=(ENH\$:FORREADSU)+L!

