


```

FFFFFFFFF  000000  RRRRRRRR  RRRRRRRR  EEEEEEEEE  WW      WW  RRRRRRRR  SSSSSSSS  UU      UU
FFFFFFFFF  000000  RRRRRRRR  RRRRRRRR  EEEEEEEEE  WW      WW  RRRRRRRR  SSSSSSSS  UU      UU
FF          00      00  RR      RR  RR      RR  EE          WW      WW  RR      RR  SS          UU      UU
FF          00      00  RR      RR  RR      RR  EE          WW      WW  RR      RR  SS          UU      UU
FF          00      00  RR      RR  RR      RR  EE          WW      WW  RR      RR  SS          UU      UU
FF          00      00  RR      RR  RR      RR  EE          WW      WW  RR      RR  SS          UU      UU
FFFFFFFFF  00      00  RRRRRRRR  RRRRRRRR  EEEEEEEEE  WW      WW  RRRRRRRR  SSSSSS    UU      UU
FFFFFFFFF  00      00  RRRRRRRR  RRRRRRRR  EEEEEEEEE  WW      WW  RRRRRRRR  SSSSSS    UU      UU
FF          00      00  RR  RR      RR  RR      RR  EE          WW  WW  WW  RR  RR      SS          UU      UU
FF          00      00  RR  RR      RR  RR      RR  EE          WW  WW  WW  RR  RR      SS          UU      UU
FF          00      00  RR      RR  RR      RR      RR  EE          WWW  WWW  RR      RR      SS          UU      UU
FF          00      00  RR      RR  RR      RR      RR  EE          WWW  WWW  RR      RR      SS          UU      UU
FF          000000  RR      RR  RR      RR      RR  EEEEEEEEE  WW      WW  RR      RR  SSSSSSSS  UUUUUUUUU  ....
FF          000000  RR      RR  RR      RR      RR  EEEEEEEEE  WW      WW  RR      RR  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
LLLLLLLLLL IIIIII  SSSSSSSS
LLLLLLLLLL IIIIII  SSSSSSSS

```

(2)	56	HISTORY	; Detailed Current Edit History
(3)	89	DECLARATIONS	
(4)	133	FOR\$REWRITE_SU - REWRITE Sequential UNFORMATTED	

```
0000 1 .TITLE FOR$REWRITE_SU - entry point for FORTRAN REWRITE SEQUENTIAL UNFORMAT
0000 2 .IDENT /1-013/ File: FORREWRSU.MAR Edit: JAW1013
0000 3 :
0000 4 :*****
0000 5 :
0000 6 :* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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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 : REWRITE 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$REWRITE_SU
0000 42 : .MASK FOR$$IO_BEG
0000 43 : BRW FOR$REWRITE_SU+2
0000 44 :
0000 45 : This puts the correct mask in entry vector, that is FOR$$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 R0R, 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$$IO_BEG, to see how much I/O initiation time
0000 77 improves.  JBS 02-JUL-1979
0000 78 1-008 - Do likewise for FOR$READ_DU and FOR$WRITE_DU.  JBS 03-JUL-1979
0000 79 1-009 - Remove all entry points except FOR$REWRITE_SU; each of the
0000 80 others gets its own module so we can selectively load
0000 81 the necessary UDF and REC modules.  JBS 09-JUL-1979
0000 82 1-010 - Correct a typo which caused the entry point name
0000 83 to be wrong.  JBS 11-JUL-1979
0000 84 1-011 - Use the correct statement type code! It had been using
0000 85 WXF!  SBL 9-August-1979
0000 86 1-012 - New parameter format for FOR$$IO_BEG.  SBL 5-Dec-1979
0000 87 1-013 - Change BRW FOR$$IO_BEG+2 to JMP G^FOR$$IO_BEG+2.  JAW 21-Feb-1981
  
```

```
0000 89      .SBTTL  DECLARATIONS
0000 90
0000 91      :
0000 92      : INCLUDE FILES:
0000 93      :
0000 94
0000 95      $FORPAR      ; Define inter-module FORTRAN symbols
0000 96      $ISBDEF     ; Define statement type symbols
0000 97
0000 98      :
0000 99      : EXTERNAL SYMBOLS:
0000 100     :
0000 101
0000 102     .DSABL  GBL      ; Declare all external symbols
0000 103     .EXTRN  FOR$$IO_BEG ; common I/O statement processing
0000 104     :+
0000 105     : The following references are to make sure the necessary UDF and REC
0000 106     : modules are loaded. These are the routines which are called through
0000 107     : the dispatch tables in FOR$$DISPAT.
0000 108     :-
0000 109     .EXTRN  FOR$$UDF_WU0, FOR$$UDF_WU1, FOR$$UDF_WU9
0000 110     .EXTRN  FOR$$REC_WXU0, FOR$$REC_WXU1, FOR$$REC_WXU9
0000 111
0000 112     :
0000 113     : MACROS:
0000 114     :
0000 115     :     NONE
0000 116     :
0000 117     : PSECT DECLARATIONS:
0000 118     :
0000 119
00000000 120     .PSECT  _FOR$CODE PIC,USR,CON,REL,LCL,SHR,EXE,RD,NOWRT,LONG
0000 121
0000 122     :
0000 123     : EQUATED SYMBOLS:
0000 124     :
0000 125
0000 126
0000 127     :
0000 128     : OWN STORAGE:
0000 129     :
0000 130     :     NONE
0000 131     :
```

```

0000 133      .SBTTL FOR$REWRITE_SU - REWRITE Sequential UNFORMATTED
0000 134
0000 135      :++
0000 136      : FUNCTIONAL DESCRIPTION:
0000 137      :
0000 138      : Initialize the FORTRAN I/O system to perform
0000 139      : a REWRITE sequential UNFORMATTED I/O statement.
0000 140
0000 141      : CALLING SEQUENCE:
0000 142      :
0000 143      : CALL FOR$REWRITE_SU (unit.rl.v
0000 144      : [err_adr.j.r [end_adr.j.r]])
0000 145
0000 146      : INPUT PARAMETERS:
0000 147      :
0000 148      : unit.rl.v          logical unit number
0000 149      : [err_adr.j.r]      optional ERR= address
0000 150      : [end_adr.j.r]     optional END= address
0000 151
0000 152      : IMPLICIT INPUTS:
0000 153      :
0000 154      : NONE except those used by FOR$$IO_BEG.
0000 155
0000 156      : OUTPUT PARAMETERS:
0000 157      :
0000 158      : NONE
0000 159
0000 160      : IMPLICIT OUTPUTS:
0000 161      :
0000 162      : NONE except those left by FOR$$IO_BEG.
0000 163
0000 164      : COMPLETION CODES:
0000 165      :
0000 166      : NONE
0000 167
0000 168      : SIDE EFFECTS:
0000 169      :
0000 170      : NONE except those of FOR$$IO_BEG.
0000 171      :
0000 172      :--
0000 173
0000 174      FOR$REWRITE_SU:: .MASK FOR$$IO_BEG
50 OF 9A 0002 175      MOVZBL #ISB$K ST_TY WXU, R0 ; Statement type
00000002 GF 17 0005 176      JMP G^FOR$$IO_BEG+2 ; branch past call mask
000B 177
000B 178
000B 179      .END
  
```

FOR\$REWRITE_SU
Symbol table

FOR\$\$IO_BEG	*****	X	00
FOR\$\$REC_WXU0	*****	X	00
FOR\$\$REC_WXU1	*****	X	00
FOR\$\$REC_WXU9	*****	X	00
FOR\$\$UDF_WU0	*****	X	00
FOR\$\$UDF_WU1	*****	X	00
FOR\$\$UDF_WU9	*****	X	00
FOR\$REWRITE_SU	00000000	RG	01
ISB&K_ST_TY_WXU	= 0000000F		

+-----+
! 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	36	00:00:00.09	00:00:00.98
Command processing	143	00:00:00.67	00:00:03.65
Pass 1	123	00:00:01.21	00:00:04.16
Symbol table sort	0	00:00:00.18	00:00:00.65
Pass 2	47	00:00:00.48	00:00:02.84
Symbol table output	2	00:00:00.02	00:00:00.02
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	355	00:00:02.68	00:00:12.33

The working set limit was 1050 pages.
6695 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.
179 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\$:FORREWRSU/OBJ=OBJ\$:FORREWRSU MSRC\$:FORREWRSU/UPDATE=(ENH\$:FORREWRSU)+LI

