```
FFFFFFFFFFFFFFF     000000000     RRRRRRRRRRRR     RRRRRRRRRRRR     TTTTTTTTTTTTTTT  LLL
FFFFFFFFFFFFFFF     000000000     RRRRRRRRRRRR     RRRRRRRRRRRR     TTTTTTTTTTTTTTT  LLL
FFFFFFFFFFFFFFF     000000000     RRRRRRRRRRRR     RRRRRRRRRRRR     TTTTTTTTTTTTTTT  LLL
FFF               000         000 RRR         RRR RRR         RRR       TTT        LLL
FFF               000         000 RRR         RRR RRR         RRR       TTT        LLL
FFF               000         000 RRR         RRR RRR         RRR       TTT        LLL
FFF               000         000 RRR         RRR RRR         RRR       TTT        LLL
FFF               000         000 RRR         RRR RRR         RRR       TTT        LLL
FFF               000         000 RRR         RRR RRR         RRR       TTT        LLL
FFFFFFFFFFF       000         000 RRRRRRRRRRRR    RRRRRRRRRRRR          TTT        LLL
FFFFFFFFFFF       000         000 RRRRRRRRRRRR    RRRRRRRRRRRR          TTT        LLL
FFFFFFFFFFF       000         000 RRRRRRRRRRRR    RRRRRRRRRRRR          TTT        LLL
FFF               000         000 RRR   RRR       RRR   RRR             TTT        LLL
FFF               000         000 RRR   RRR       RRR   RRR             TTT        LLL
FFF               000         000 RRR   RRR       RRR   RRR             TTT        LLL
FFF               000         000 RRR     RRR     RRR     RRR           TTT        LLL
FFF               000         000 RRR     RRR     RRR     RRR           TTT        LLL
FFF               000         000 RRR     RRR     RRR     RRR           TTT        LLL
FFF                 000000000     RRR         RRR RRR         RRR       TTT        LLLLLLLLLLLLLLL
FFF                 000000000     RRR         RRR RRR         RRR       TTT        LLLLLLLLLLLLLLL
FFF                 000000000     RRR         RRR RRR         RRR       TTT        LLLLLLLLLLLLLLL
```

FILEID**FORREWRSU

```
FFFFFFFFFF    000000    RRRRRRRR    RRRRRRRR    EEEEEEEEEE  WW      WW  RRRRRRRR      SSSSSSSS  UU      UU
FFFFFFFFFF    000000    RRRRRRRR    RRRRRRRR    EEEEEEEEEE  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
FFFFFFFF     00    00   RRRRRRRR    RRRRRRRR    EEEEEEEE    WW      WW  RRRRRRRR      SSSSSS    UU      UU
FFFFFFFF     00    00   RRRRRRRR    RRRRRRRR    EEEEEEEE    WW      WW  RRRRRRRR      SSSSSS    UU      UU
FF           00    00   RR  RR      RR  RR      EE          WW  WW  WW  RR  RR              SS  UU      UU
FF           00    00   RR  RR      RR  RR      EE          WW  WW  WW  RR  RR              SS  UU      UU
FF           00    00   RR    RR    RR    RR    EE          WWWW  WWWW  RR    RR            SS  UU      UU      ....
FF           00    00   RR    RR    RR    RR    EE          WWWW  WWWW  RR    RR            SS  UU      UU      ....
FF             000000    RR      RR  RR      RR  EEEEEEEEEE  WW      WW  RR      RR    SSSSSSSS  UUUUUUUUUU      ....
FF             000000    RR      RR  RR      RR  EEEEEEEEEE  WW      WW  RR      RR    SSSSSSSS  UUUUUUUUUU      ....

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  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 ;*                                                                           *
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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$$IO_BEG, to see how much I/O initiation time
0000     77 ;         improves.  JBS 02-JUL-1979
0000     78 ; 1-008 - Do likewuse for FOR$READ_DU and FOR$WRITE_DU.  JBS 03-JUL-1979
0000     79 ; 1-009 - Remove all entry points except FOR$REWRITE_SU; each of the
0000     80 ;         others gets its own module so we can selectively load
0000     81 ;         the necessary UDF and REC modules.  JBS 09-JUL-1979
0000     82 ; 1-010 - Correct a typo which caused the entry point name
0000     83 ;         to be wrong.  JBS 11-JUL-1979
0000     84 ; 1-011 - Use the correct statement type code! It had been using
0000     85 ;         WXF!  SBL 9-August-1979
0000     86 ; 1-012 - New parameter format for FOR$$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
```

```
                        89          .SBTTL  DECLARATIONS
                        90
                        91 ;
                        92 ; INCLUDE FILES:
                        93 ;
                        94
                        95          $FORPAR                         ; Define inter-module FORTRAN symbols
                        96          $ISBDEF                         ; Define statement type symbols
                        97
                        98 ;
                        99 ; EXTERNAL SYMBOLS:
                       100 ;
                       101
                       102          .DSABL  GBL                     ; Declare all external symbols
                       103          .EXTRN  FOR$$IO_BEG             ; common I/O statement processing
                       104 ;+
                       105 ; The following references are to make sure the necessary UDF and REC
                       106 ; modules are loaded.  These are the routines which are called through
                       107 ; the dispatch tables in FOR$$DISPAT.
                       108 ;-
                       109          .EXTRN  FOR$$UDF_WU0, FOR$$UDF_WU1, FOR$$UDF_WU9
                       110          .EXTRN  FOR$$REC_WXU0, FOR$$REC_WXU1, FOR$$REC_WXU9
                       111
                       112 ;
                       113 ; MACROS:
                       114 ;
                       115 ;          NONE
                       116 ;
                       117 ; PSECT DECLARATIONS:
                       118 ;
                       119
00000000               120          .PSECT  _FOR$CODE PIC,USR,CON,REL,LCL,SHR,EXE,RD,NOWRT,LONG
                       121
                       122 ;
                       123 ; EQUATED SYMBOLS:
                       124 ;
                       125
                       126
                       127 ;
                       128 ; OWN STORAGE:
                       129 ;
                       130 ;          NONE
                       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$$IO_BEG.
                     0000   171 ;
                     0000   172 ;--
                     0000   173
             0000'   0000   174 FOR$REWRITE_SU::        .MASK   FOR$$IO_BEG
          50   0F    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$$IO_BEG                     ********   X   00
FOR$$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
_255DUA28:[FORRTL.OBJ]FORRTL.MLB;1	2
_255DUA28:[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
```

FORREADIF LIS
FORREADIO LIS
FORRECPRO LIS
FORREWRSU LIS
FORSIGNAL LIS
FORREADKO LIS
FORREWIND LIS
FORREADSF LIS
FORREWRSO LIS
FORREADSN LIS
FORREADDU LIS
FORREADSU LIS
FORSECNDS LIS
FORREADIL LIS
FORREADKF LIS
FORREADKU LIS
FORREWRSF LIS
FORREADSL LIS
FORREADSO LIS