


```

FFFFFFFFF 000000 RRRRRRRR DDDDDDDD IIIIII SSSSSSSS PPPPPPPP AAAAAA TTTTTTTTTT
FFFFFFFFF 000000 RRRRRRRR DDDDDDDD IIIIII SSSSSSSS PPPPPPPP AAAAAA TTTTTTTTTT
FF         00      00 RR      RR DD      DD      II      SS      PP      PP AA      AA      TT
FF         00      00 RR      RR DD      DD      II      SS      PP      PP AA      AA      TT
FF         00      00 RR      RR DD      DD      II      SS      PP      PP AA      AA      TT
FF         00      00 RR      RR DD      DD      II      SS      PP      PP AA      AA      TT
FFFFFFFFF 00      00 RRRRRRRR DD      DD      II      SSSSSS PPPPPPPP AA      AA      TT
FFFFFFFFF 00      00 RRRRRRRR DD      DD      II      SSSSSS PPPPPPPP AA      AA      TT
FF         00      00 RR  RR  DD      DD      II      SS      PP      AAAAAAAAAA TT
FF         00      00 RR  RR  DD      DD      II      SS      PP      AAAAAAAAAA TT
FF         00      00 RR  RR  DD      DD      II      SS      PP      AA      AA      TT
FF         00      00 RR  RR  DD      DD      II      SS      PP      AA      AA      TT
FF         000000 RR      RR DDDDDDDD IIIIII SSSSSSSS PP      AA      AA      TT
FF         000000 RR      RR DDDDDDDD IIIIII SSSSSSSS PP      AA      AA      TT

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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

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1 0001 0 MODULE FOR$$DISPATCH_T (%TITLE'I/O dispatch tables for FORTRAN'
2 0002 0 IDENT = '1-020' ! File: FORDISPAT.B32 Edit: SBL1020
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1 *****
7 0007 1 *
8 0008 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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26 0026 1 *
27 0027 1 *****
28 0028 1
29 0029 1
30 0030 1 **
31 0031 1 FACILITY: FORTRAN I/O
32 0032 1
33 0033 1 ABSTRACT:
34 0034 1
35 0035 1 This module contains the Global dispatch tables for the UDF (user data
36 0036 1 formatter) level and REC (record) level for FORTRAN.
37 0037 1 In addition it contains a routine which signals errors for invalid
38 0038 1 statement types.
39 0039 1
40 0040 1 ENVIRONMENT:
41 0041 1
42 0042 1 AST reentrant - all OWN storage is read only
43 0043 1
44 0044 1 AUTHOR: Donald G. Petersen , CREATION DATE: 07-Dec-78
45 0045 1
46 0046 1 MODIFIED BY:
47 0047 1
48 0048 1 DGP,06-Dec-78 : VERSION 1-001
49 0049 1 1-001 - original. DGP 06-Dec-78
50 0050 1 1-002 - Add some functionality to OT$$SIGDIS_ERR. DGP 08-Dec-78
51 0051 1 1-003 - Change dispatch tables to longwords. DGP 11-Dec-78
52 0052 1 1-004 - Add Basic READ to dispatch tables. DGP 12-Dec-78
53 0053 1 1-005 - Change FORLNK require file to OTSLNK. JBS 22-DEC-78
54 0054 1 1-006 - Signal the proper errors in the error routine. DGP 18-Jan-79
55 0055 1 1-007 - Change file name to OTSDISPAT to agree with RTL standards
56 0056 1 and internal comments. JBS 27-JAN-1979
57 0057 1 1-008 - Use 32-bit addresses for externals. JBS 27-JAN-1979

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: 58      0058 1 : 1-009 - Track SBL's changes to the statement types in the ISB.
: 59      0059 1 :      JBS 09-FEB-1979
: 60      0060 1 : 1-010 - Add GET and PUT. DGP 19-Feb-79
: 61      0061 1 : 1-011 - Add PRINT USING and straighten up a lot of Basic stuff. DGP
: 62      0062 1 :      15-May-79
: 63      0063 1 : 1-012 - Add MAT INPUT. DGP 05-Jun-79
: 64      0064 1 : 1-013 - Add MAT PRINT. DGP 15-Jun-79
: 65      0065 1 : 1-014 - Add remaining FORTRAN statement types. Indexed REWRITE,
: 66      0066 1 :      keyed READ, internal READ and WRITE. SBL 18-Jun-1979
: 67      0067 1 : 1-015 - Remove BASIC and change name to FOR$$DISPATCH_T. The
: 68      0068 1 :      BASIC part is put into BAS$$DISPATCH_T. JBS 26-JUN-1979
: 69      0069 1 : 1-016 - Use ISB symbols to determine table size. SBL 12-July-1979
: 70      0070 1 : 1-017 - Add FOR$$SIGDIS_JSB. JBS 01-JUL-1979
: 71      0071 1 : ***** - VMS V2.0
: 72      0072 1 : 1-018 - Add table entries for NAMELIST. SBL 16-July-1980
: 73      0073 1 : 1-019 - Make UDF- and REC-level references WEAK. JAW 25-Aug-1981
: 74      0074 1 : ***** - VMS V3.0
: 75      0075 1 : 1-020 - Add table entries for list-directed internal files. Use
: 76      0076 1 :      prologue file. SBL 21-Apr-1983
: 77      0077 1 : --
: 78      0078 1 :
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80 0079 1 |
81 0080 1 | PROLOGUE FILE:
82 0081 1 |
83 0082 1 |
84 0083 1 | REQUIRE 'RTLIN:FORPROLOG';           | FORTRAN definitions
85 0149 1 |
86 0150 1 |
87 0151 1 | TABLE OF CONTENTS:
88 0152 1 |
89 0153 1 |
90 0154 1 | FORWARD ROUTINE
91 0155 1 |   FOR$$SIGDIS_ERR : CALL_CCB NOVALUE, | Signal a dispatch error
92 0156 1 |   FOR$$SIGDIS_JSB : JSB_ODFO NOVALUE; | (JSB entry point)
93 0157 1 |
94 0158 1 |
95 0159 1 | MACROS:
96 0160 1 |
97 0161 1 |   NONE
98 0162 1 |
99 0163 1 | EQUATED SYMBOLS:
100 0164 1 |
101 0165 1 |   NONE
102 0166 1 |
103 0167 1 | EXTERNAL REFERENCES:
104 0168 1 |
105 0169 1 |
106 0170 1 | EXTERNAL LITERAL
107 0171 1 |   OTSS_FATINTERR,
108 0172 1 |   OTSS_IO_CONCLO;
109 0173 1 |
110 0174 1 | !+
111 0175 1 | | Formatting level of abstraction
112 0176 1 | | -
113 0177 1 |
114 0178 1 | EXTERNAL ROUTINE
115 0179 1 |   FOR$$UDF_RF0 : JSB_UDFO NOVALUE WEAK, | Initialize read formatted
116 0180 1 |   FOR$$UDF_RF1 : CALL_CCB NOVALUE WEAK, | format one I/O list element
117 0181 1 |   FOR$$UDF_RF9 : JSB_ODF9 NOVALUE WEAK, | terminate read formatted
118 0182 1 |   FOR$$UDF_WF0 : JSB_UDFO NOVALUE WEAK, | Initialize write formatted
119 0183 1 |   FOR$$UDF_WF1 : CALL_CCB NOVALUE WEAK, | Format one I/O list element
120 0184 1 |   FOR$$UDF_WF9 : JSB_ODF9 NOVALUE WEAK, | Terminate write formatted
121 0185 1 |   FOR$$UDF_RU0 : JSB_UDFO NOVALUE WEAK, | Initialize read unformatted
122 0186 1 |   FOR$$UDF_RU1 : CALL_CCB NOVALUE WEAK, | Transmit one I/O list element
123 0187 1 |   FOR$$UDF_RU9 : JSB_ODF9 NOVALUE WEAK, | Terminate read unformatted
124 0188 1 |   FOR$$UDF_WU0 : JSB_UDFO NOVALUE WEAK, | Initialize write unformatted
125 0189 1 |   FOR$$UDF_WU1 : CALL_CCB NOVALUE WEAK, | Transmit one I/O list element
126 0190 1 |   FOR$$UDF_WU9 : JSB_ODF9 NOVALUE WEAK, | Terminate write unformatted
127 0191 1 |   FOR$$UDF_RL0 : JSB_UDFO NOVALUE WEAK, | Initialize read list-directed
128 0192 1 |   FOR$$UDF_RL1 : CALL_CCB NOVALUE WEAK, | Transmit one I/O list element
129 0193 1 |   FOR$$UDF_RL9 : JSB_ODF9 NOVALUE WEAK, | Terminate read list directed
130 0194 1 |   FOR$$UDF_WL0 : JSB_UDFO NOVALUE WEAK, | Initialize write list-directed
131 0195 1 |   FOR$$UDF_WL1 : CALL_CCB NOVALUE WEAK, | Transmit one I/O list element
132 0196 1 |   FOR$$UDF_WL9 : JSB_ODF9 NOVALUE WEAK, | Terminate write list-directed
133 0197 1 |   FOR$$UDF_RNO : JSB_UDFO NOVALUE WEAK, | Initialize read NAMELIST
134 0198 1 |   | No UDF_RN1 exists
135 0199 1 |   FOR$$UDF_RN9 : JSB_UDF9 NOVALUE WEAK, | Terminate read NAMELIST
136 0200 1 |   FOR$$UDF_WNO : JSB_UDFO NOVALUE WEAK, | Initialize write NAMELIST

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137 0201 1
138 0202 1 FOR$$UDF_WN9 : JSB_UDF9 NOVALUE WEAK; ! No UDF_WN1 exists
139 0203 1 ! Terminate write NAMELIST
140 0204 1 !+
141 0205 1 ! Record processing level of abstraction
142 0206 1 !-
143 0207 1
144 0208 1 EXTERNAL ROUTINE ! Read sequential formatted record
145 0209 1 FOR$$REC_RSFO : JSB_REC0 NOVALUE WEAK, ! read first record
146 0210 1 FOR$$REC_RSFI : JSB_REC1 NOVALUE WEAK, ! read all subsequent records
147 0211 1 FOR$$REC_RSFI9 : JSB_REC9 NOVALUE WEAK, ! terminate read write sequential
148 0212 1 ! formatted record
149 0213 1 FOR$$REC_WSFO : JSB_REC0 NOVALUE WEAK, ! initialize output buffer
150 0214 1 FOR$$REC_WSF1 : JSB_REC1 NOVALUE WEAK, ! write all but last record
151 0215 1 FOR$$REC_WSF9 : JSB_REC9 NOVALUE WEAK, ! write last record
152 0216 1 ! read sequential unformatted record
153 0217 1 FOR$$REC_RSUO : JSB_REC0 NOVALUE WEAK, ! read first record
154 0218 1 FOR$$REC_RSU1 : JSB_REC1 NOVALUE WEAK, ! read all subsequent records
155 0219 1 FOR$$REC_RSU9 : JSB_REC9 NOVALUE WEAK, ! terminate read
156 0220 1 ! write sequential unformatted record:
157 0221 1 FOR$$REC_WSUO : JSB_REC0 NOVALUE WEAK, ! initialize output buffer
158 0222 1 FOR$$REC_WSU1 : JSB_REC1 NOVALUE WEAK, ! write all but last record
159 0223 1 FOR$$REC_WSU9 : JSB_REC9 NOVALUE WEAK, ! write last record
160 0224 1 ! read direct (formatted: and unformatted)
161 0225 1 FOR$$REC_RDO : JSB_REC0 NOVALUE WEAK, ! read first record
162 0226 1 FOR$$REC_RD1 : JSB_REC1 NOVALUE WEAK, ! read next record
163 0227 1 FOR$$REC_RD9 : JSB_REC9 NOVALUE WEAK, ! terminate read
164 0228 1 ! write direct (formatted: and unformatted)
165 0229 1 FOR$$REC_WDO : JSB_REC0 NOVALUE WEAK, ! initialize output buffer
166 0230 1 FOR$$REC_WD1 : JSB_REC1 NOVALUE WEAK, ! write next record
167 0231 1 FOR$$REC_WD9 : JSB_REC9 NOVALUE WEAK, ! write last record
168 0232 1 ! read sequential list-directed
169 0233 1 FOR$$REC_RSL0 : JSB_REC0 NOVALUE WEAK, ! read first record
170 0234 1 FOR$$REC_RSL1 : JSB_REC1 NOVALUE WEAK, ! read all subsequent records
171 0235 1 FOR$$REC_RSL9 : JSB_REC9 NOVALUE WEAK, ! terminate read
172 0236 1 ! write sequential list-directed
173 0237 1 FOR$$REC_WSL0 : JSB_REC0 NOVALUE WEAK, ! initialize output buffer
174 0238 1 FOR$$REC_WSL1 : JSB_REC1 NOVALUE WEAK, ! write all but last record
175 0239 1 FOR$$REC_WSL9 : JSB_REC9 NOVALUE WEAK, ! write last record
176 0240 1 ! read memory formatted (DECODE)
177 0241 1 FOR$$REC_RMF0 : JSB_REC0 NOVALUE WEAK, ! initialize pointers to user area
178 0242 1 FOR$$REC_RMF1 : JSB_REC1 NOVALUE WEAK, ! illegal
179 0243 1 FOR$$REC_RMF9 : JSB_REC9 NOVALUE WEAK, ! terminate read
180 0244 1 ! write memory formatted (ENCODE)
181 0245 1 FOR$$REC_WMF0 : JSB_REC0 NOVALUE WEAK, ! initialize output buffer to user area
182 0246 1 FOR$$REC_WMF1 : JSB_REC1 NOVALUE WEAK, ! illegal
183 0247 1 FOR$$REC_WMF9 : JSB_REC9 NOVALUE WEAK, ! terminate write
184 0248 1 FOR$$REC_RKF0 : JSB_REC0 NOVALUE WEAK, ! read keyed formatted
185 0249 1 FOR$$REC_RKF1 : JSB_REC1 NOVALUE WEAK,
186 0250 1 FOR$$REC_RKF9 : JSB_REC9 NOVALUE WEAK,
187 0251 1 FOR$$REC_RKU0 : JSB_REC0 NOVALUE WEAK, ! read keyed unformatted
188 0252 1 FOR$$REC_RKU1 : JSB_REC1 NOVALUE WEAK,
189 0253 1 FOR$$REC_RKU9 : JSB_REC9 NOVALUE WEAK,
190 0254 1 FOR$$REC_WXF0 : JSB_REC0 NOVALUE WEAK, ! REWRITE indexed formatted
191 0255 1 FOR$$REC_WXF1 : JSB_REC1 NOVALUE WEAK,
192 0256 1 FOR$$REC_WXF9 : JSB_REC9 NOVALUE WEAK,
193 0257 1 FOR$$REC_WXU0 : JSB_REC0 NOVALUE WEAK, ! REWRITE indexed unformatted

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: 194      0258 1      FOR$$REC_WXU1 : JSB_REC1 NOVALUE,
: 195      0259 1      FOR$$REC_WXU9 : JSB_REC9 NOVALUE,
: 196      0260 1      FOR$$REC_WIF0 : JSB_REC0 NOVALUE WEAK,      ! Write internal file
: 197      0261 1      FOR$$REC_WIF1 : JSB_REC1 NOVALUE,
: 198      0262 1      FOR$$REC_WIF9 : JSB_REC9 NOVALUE,
: 199      0263 1      FOR$$REC_RIF0 : JSB_REC0 NOVALUE WEAK,      ! Read internal file
: 200      0264 1      FOR$$REC_RIF1 : JSB_REC1 NOVALUE,
: 201      0265 1      FOR$$REC_RIF9 : JSB_REC9 NOVALUE,
: 202      0266 1      FOR$$REC_WSN0 : JSB_REC0 NOVALUE WEAK,      ! Write NAMELIST
: 203      0267 1      FOR$$REC_WSN1 : JSB_REC1 NOVALUE,
: 204      0268 1
: 205      0269 1
: 206      0270 1      FOR$$REC_RSNO : JSB_REC0 NOVALUE WEAK,      ! There is no 9 level REC
: 207      0271 1      FOR$$REC_RSN1 : JSB_REC1 NOVALUE WEAK,      ! routine for Write NAMELIST
: 208      0272 1
: 209      0273 1
: 210      0274 1      FOR$$REC_WILO : JSB_REC0 NOVALUE WEAK,      ! Read NAMELIST
: 211      0275 1      FOR$$REC_WIL1 : JSB_REC1 NOVALUE,      ! There is no 9 level REC
: 212      0276 1      FOR$$REC_WIL9 : JSB_REC9 NOVALUE,      ! routine for Read NAMELIST
: 213      0277 1      FOR$$REC_RILO : JSB_REC0 NOVALUE WEAK,      ! Write internal list-directed
: 214      0278 1      FOR$$REC_RIL1 : JSB_REC1 NOVALUE,
: 215      0279 1      FOR$$REC_RIL9 : JSB_REC9 NOVALUE;
: 216      0280 1
: 217      0281 1
: 218      0282 1      ! OWN STORAGE:
: 219      0283 1

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221 0284 1  +
222 0285 1  GLOBAL DISPATCH VECTORS (indexed by I/O statement type numbers):
223 0286 1  Connects the first level of abstraction (UPI) to the
224 0287 1  second level (UDF). Note: The comments down the
225 0288 1  side describe the I/O statement index (UPI level) into the
226 0289 1  dispatch table rather than the external routine contained in
227 0290 1  the entry (UDF level). The entries are the name of the
228 0291 1  User data formatters (UDF level = 2nd level of abstraction) -
229 0292 1  First letter: R = READ, W = WRITE; second letter: F = formatted,
230 0293 1  W = unformatted, L = list-directed.
231 0294 1  Declare as GLOBAL rather than GLOBAL BIND because
232 0295 1  BLISS doesn't allow BIND table = ... - table).
233 0296 1  -
234 0297 1  +
235 0298 1  Initialization of UDF level:
236 0299 1  -
237 0300 1
238 0301 1 GLOBAL
239 0302 1 FOR$$AA_UDF_PRO : VECTOR [ISB$K_FORSTTYHI - ISB$K_FORSTTYLO + 2,, SIGNED]
240 0303 1 PSECT (_FOR$CODE) INITIAL (
241 0304 1 ! I/O on closed unit
242 0305 1 FOR$$SIGDIS_JSB - FOR$$AA_UDF_PRO, ! Error
243 0306 1 ! I/O statement type:
244 0307 1 FOR$$UDF_WFO - FOR$$AA_UDF_PRO, ! WRITE sequential formatted (WSF)
245 0308 1 FOR$$UDF_RFO - FOR$$AA_UDF_PRO, ! READ sequential formatted (RSF)
246 0309 1 FOR$$UDF_WUO - FOR$$AA_UDF_PRO, ! WRITE sequential unformatted (WSU)
247 0310 1 FOR$$UDF_RUO - FOR$$AA_UDF_PRO, ! READ sequential unformatted (RSU)
248 0311 1 FOR$$UDF_WFO - FOR$$AA_UDF_PRO, ! WRITE direct formatted (WDF)
249 0312 1 FOR$$UDF_RFO - FOR$$AA_UDF_PRO, ! READ direct formatted (RDF)
250 0313 1 FOR$$UDF_WUO - FOR$$AA_UDF_PRO, ! WRITE direct unformatted (WDU)
251 0314 1 FOR$$UDF_RUO - FOR$$AA_UDF_PRO, ! READ direct unformatted (RDU)
252 0315 1 FOR$$UDF_WLO - FOR$$AA_UDF_PRO, ! WRITE sequential list-direct (WSL)
253 0316 1 FOR$$UDF_RLO - FOR$$AA_UDF_PRO, ! READ sequential list-directed (RSL)
254 0317 1 FOR$$UDF_WFO - FOR$$AA_UDF_PRO, ! ENCODE (memory formatted) (WMF)
255 0318 1 FOR$$UDF_RFO - FOR$$AA_UDF_PRO, ! DECODE (memory formatted) (RMF)
256 0319 1 FOR$$UDF_WFO - FOR$$AA_UDF_PRO, ! FORTRAN REWRITE indexed formatted (WXF)
257 0320 1 FOR$$UDF_RFO - FOR$$AA_UDF_PRO, ! FORTRAN READ keyed formatted (RKF)
258 0321 1 FOR$$JDF_WUO - FOR$$AA_UDF_PRO, ! FORTRAN REWRITE indexed unformatted (WXU)
259 0322 1 FOR$$UDF_RUO - FOR$$AA_UDF_PRO, ! FORTRAN READ keyed unformatted (RKU)
260 0323 1 FOR$$UDF_WFO - FOR$$AA_UDF_PRO, ! FORTRAN WRITE internal formatted (WIF)
261 0324 1 FOR$$UDF_RFO - FOR$$AA_UDF_PRO, ! FORTRAN READ internal formatted (RIF)
262 0325 1 FOR$$UDF_WNO - FOR$$AA_UDF_PRO, ! FORTRAN WRITE NAMELIST
263 0326 1 FOR$$UDF_RNO - FOR$$AA_UDF_PRO, ! FORTRAN READ NAMELIST
264 0327 1 FOR$$UDF_WLO - FOR$$AA_UDF_PRO, ! FORTRAN WRITE internal list-directed
265 0328 1 FOR$$UDF_RLO - FOR$$AA_UDF_PRO, ! FORTRAN READ internal list-directed

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```

: 267 0329 1 !+
: 268 0330 1 ! Transmit a single I/O list element
: 269 0331 1 !-
: 270 0332 1
: 271 0333 1 GLOBAL
: 272 0334 1 FOR$$AA_UDF_PRI : VECTOR [ISB$K_FORSTTYHI - ISB$K_FORSTTYLO + 2,, SIGNED]
: 273 0335 1 PSECT ("FOR$CODE) INITIAL (
: 274 0336 1 FOR$$SIGDIS_ERR - FOR$$AA_UDF_PRI, ! I/O on closed unit error
: 275 0337 1 ! I/O statement type:
: 276 0338 1 FOR$$UDF_WF1 - FOR$$AA_UDF_PRI, ! WRITE sequential formatted (WSF)
: 277 0339 1 FOR$$UDF_RF1 - FOR$$AA_UDF_PRI, ! READ sequential formatted (RSF)
: 278 0340 1 FOR$$UDF_WU1 - FOR$$AA_UDF_PRI, ! WRITE sequential unformatted (WSU)
: 279 0341 1 FOR$$UDF_RU1 - FOR$$AA_UDF_PRI, ! READ sequential unformatted (RSU)
: 280 0342 1 FOR$$UDF_WF1 - FOR$$AA_UDF_PRI, ! WRITE direct formatted (WDF)
: 281 0343 1 FOR$$UDF_RF1 - FOR$$AA_UDF_PRI, ! READ direct formatted (RDF)
: 282 0344 1 FOR$$UDF_WU1 - FOR$$AA_UDF_PRI, ! WRITE direct unformatted (WDU)
: 283 0345 1 FOR$$UDF_RU1 - FOR$$AA_UDF_PRI, ! READ direct unformatted (RDU)
: 284 0346 1 FOR$$UDF_WL1 - FOR$$AA_UDF_PRI, ! WRITE sequential list-direct (WSL)
: 285 0347 1 FOR$$UDF_RL1 - FOR$$AA_UDF_PRI, ! READ sequential list-directed (RSL)
: 286 0348 1 FOR$$UDF_WF1 - FOR$$AA_UDF_PRI, ! ENCODE (memory formatted) (WMF)
: 287 0349 1 FOR$$UDF_RF1 - FOR$$AA_UDF_PRI, ! DECODE (memory formatted) (RMF)
: 288 0350 1 FOR$$UDF_WF1 - FOR$$AA_UDF_PRI, ! FORTRAN REWRITE indexed formatted (WXF)
: 289 0351 1 FOR$$UDF_RF1 - FOR$$AA_UDF_PRI, ! FORTRAN READ keyed formatted (RKF)
: 290 0352 1 FOR$$UDF_WU1 - FOR$$AA_UDF_PRI, ! FORTRAN REWRITE indexed unformatted (WXU)
: 291 0353 1 FOR$$UDF_RU1 - FOR$$AA_UDF_PRI, ! FORTRAN READ keyed unformatted (RKU)
: 292 0354 1 FOR$$UDF_WF1 - FOR$$AA_UDF_PRI, ! FORTRAN WRITE internal formatted (WIF)
: 293 0355 1 FOR$$UDF_RF1 - FOR$$AA_UDF_PRI, ! FORTRAN READ internal formatted (RIF)
: 294 0356 1 FOR$$SIGDIS_ERR - FOR$$AA_UDF_PRI, ! No elements for WRITE NAMELIST
: 295 0357 1 FOR$$SIGDIS_ERR - FOR$$AA_UDF_PRI, ! No elements for READ NAMELIST
: 296 0358 1 FOR$$UDF_WL1 - FOR$$AA_UDF_PRI, ! FORTRAN WRITE internal list-directed
: 297 0359 1 FOR$$UDF_RL1 - FOR$$AA_UDF_PRI); ! FORTRAN READ internal list-directed

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```
299 0360 1 !+
300 0361 1 ! End I/O list entry points:
301 0362 1 !-
302 0363 1
303 0364 1 GLOBAL
304 0365 1 FOR$$AA_UDF_PR9 : VECTOR [ISB$K_FORSTTYHI - ISB$K_FORSTTYLO + 2,, SIGNED]
305 0366 1 PSECT (-FOR$CODE) INITIAL (
306 0367 1 FOR$$SIGDIS_JSB - FOR$$AA_UDF_PR9, ! I/O on closed unit error
307 0368 1 ! I/O statement type:
308 0369 1 FOR$$UDF_WF9 - FOR$$AA_UDF_PR9, ! WRITE sequential formatted (WSF)
309 0370 1 FOR$$UDF_RF9 - FOR$$AA_UDF_PR9, ! READ sequential formatted (RSF)
310 0371 1 FOR$$UDF_WU9 - FOR$$AA_UDF_PR9, ! WRITE sequential unformatted (WSU)
311 0372 1 FOR$$UDF_RU9 - FOR$$AA_UDF_PR9, ! READ sequential unformatted (RSU)
312 0373 1 FOR$$UDF_WF9 - FOR$$AA_UDF_PR9, ! WRITE direct formatted (WDF)
313 0374 1 FOR$$UDF_RF9 - FOR$$AA_UDF_PR9, ! READ direct formatted (RDF)
314 0375 1 FOR$$UDF_WU9 - FOR$$AA_UDF_PR9, ! WRITE direct unformatted (WDU)
315 0376 1 FOR$$UDF_RU9 - FOR$$AA_UDF_PR9, ! READ direct unformatted (RDU)
316 0377 1 FOR$$UDF_WL9 - FOR$$AA_UDF_PR9, ! WRITE sequential list-direct (WSL)
317 0378 1 FOR$$UDF_RL9 - FOR$$AA_UDF_PR9, ! READ sequential list-directed (RSL)
318 0379 1 FOR$$UDF_WF9 - FOR$$AA_UDF_PR9, ! ENCODE (memory formatted) (WMF)
319 0380 1 FOR$$UDF_RF9 - FOR$$AA_UDF_PR9, ! DECODE (memory formatted) (RMF)
320 0381 1 FOR$$UDF_WF9 - FOR$$AA_UDF_PR9, ! FORTRAN REWRITE indexed formatted (WXF)
321 0382 1 FOR$$UDF_RF9 - FOR$$AA_UDF_PR9, ! FORTRAN READ keyed formatted (RKF)
322 0383 1 FOR$$UDF_WU9 - FOR$$AA_UDF_PR9, ! FORTRAN REWRITE indexed unformatted (WXU)
323 0384 1 FOR$$UDF_RU9 - FOR$$AA_UDF_PR9, ! FORTRAN READ keyed unformatted (RKU)
324 0385 1 FOR$$UDF_WF9 - FOR$$AA_UDF_PR9, ! FORTRAN WRITE internal formatted (WIF)
325 0386 1 FOR$$UDF_RF9 - FOR$$AA_UDF_PR9, ! FORTRAN READ internal formatted (RIF)
326 0387 1 FOR$$UDF_WN9 - FOR$$AA_UDF_PR9, ! FORTRAN WRITE NAMELIST
327 0388 1 FOR$$UDF_RN9 - FOR$$AA_UDF_PR9, ! FORTRAN READ NAMELIST
328 0389 1 FOR$$UDF_WL9 - FOR$$AA_UDF_PR9, ! FORTRAN WRITE internal list-dorectec
329 0390 1 FOR$$UDF_RL9 - FOR$$AA_UDF_PR9, ! FORTRAN READ internal list-directed
```

```

331 0391 1 | +
332 0392 1 | Dispatch tables to call record processing level of abstraction
333 0393 1 | routines (REC = 3rd level). Used to connect 2nd level of
334 0394 1 | abstraction (UDF) to third level of abstraction (REC).
335 0395 1 | The dispatch tables are indexed by I/O statement type (1st
336 0396 1 | level UPI.)
337 0397 1 | Record processing routine names have the form:
338 0398 1 | First letters: R = READ, W = WRITE));
339 0399 1 | Second letters: S = sequential, D = direct, M = memory));
340 0400 1 | third letters: F = formatted, U = unformatted, L = list-directed.
341 0401 1 | -
342 0402 1 | +
343 0403 1 | Initialize entry points (read first record or setup
344 0404 1 | output buffer).
345 0405 1 | -
346 0406 1 |
347 0407 1 | GLOBAL
348 0408 1 |   FOR$$AA_REC_PRO : VECTOR [ISB$K_FORSTTYHI - ISB$K_FORSTTYLO + 2,, SIGNED]
349 0409 1 |   PSECT (FOR$CODE) INITIAL (
350 0410 1 |     FOR$$SIGDIS_JSB - FOR$$AA_REC_PRO, ! I/O on closed unit error
351 0411 1 |     ! I/O statement type:
352 0412 1 |     FOR$$REC_WSFO - FOR$$AA_REC_PRO, ! WRITE sequential formatted (WSF)
353 0413 1 |     FOR$$REC_RSFO - FOR$$AA_REC_PRO, ! READ sequential formatted (RSF)
354 0414 1 |     FOR$$REC_WSUO - FOR$$AA_REC_PRO, ! WRITE sequential unformatted (WSU)
355 0415 1 |     FOR$$REC_RSUO - FOR$$AA_REC_PRO, ! READ sequential unformatted (RSU)
356 0416 1 |     FOR$$REC_WDO - FOR$$AA_REC_PRO, ! WRITE direct formatted (WDF)
357 0417 1 |     FOR$$REC_RDO - FOR$$AA_REC_PRO, ! READ direct formatted (RDF)
358 0418 1 |     FOR$$REC_WDU - FOR$$AA_REC_PRO, ! WRITE direct unformatted (WDU)
359 0419 1 |     FOR$$REC_RDU - FOR$$AA_REC_PRO, ! READ direct unformatted (RDU)
360 0420 1 |     FOR$$REC_WSLO - FOR$$AA_REC_PRO, ! WRITE sequential list-direct (WSL)
361 0421 1 |     FOR$$REC_RSLO - FOR$$AA_REC_PRO, ! READ sequential list-directed (RSL)
362 0422 1 |     FOR$$REC_WMFO - FOR$$AA_REC_PRO, ! ENCODE (memory formatted) (WMF)
363 0423 1 |     FOR$$REC_RMFO - FOR$$AA_REC_PRO, ! DECODE (memory formatted) (RMF)
364 0424 1 |     FOR$$REC_WXFO - FOR$$AA_REC_PRO, ! FORTRAN REWRITE indexed formatted (WXF)
365 0425 1 |     FOR$$REC_RKFO - FOR$$AA_REC_PRO, ! FORTRAN READ keyed formatted (RKF)
366 0426 1 |     FOR$$REC_WXUO - FOR$$AA_REC_PRO, ! FORTRAN REWRITE indexed unformatted (WXU)
367 0427 1 |     FOR$$REC_RKUO - FOR$$AA_REC_PRO, ! FORTRAN READ keyed unformatted (RKU)
368 0428 1 |     FOR$$REC_WIFO - FOR$$AA_REC_PRO, ! FORTRAN WRITE internal formatted (WIF)
369 0429 1 |     FOR$$REC_RIFO - FOR$$AA_REC_PRO, ! FORTRAN READ internal formatted (RIF)
370 0430 1 |     FOR$$REC_WSNO - FOR$$AA_REC_PRO, ! FORTRAN WRITE NAMELIST
371 0431 1 |     FOR$$REC_RSNO - FOR$$AA_REC_PRO, ! FORTRAN READ NAMELIST
372 0432 1 |     FOR$$REC_WILO - FOR$$AA_REC_PRO, ! FORTRAN WRITE internal list-directed
373 0433 1 |     FOR$$REC_RILO - FOR$$AA_REC_PRO); ! FORTRAN READ internal list-directec

```

```

: 375 0434 1 !+
: 376 0435 1 ! Intermediate transfer a record - read second and
: 377 0436 1 ! subsequent records for this I/O statement or write
: 378 0437 1 ! first and all but last record for this I/O statement.
: 379 0438 1 !-
: 380 0439 1
: 381 0440 1 GLOBAL
: 382 0441 1 FOR$$AA_REC_PR1 : VECTOR [ISB$K_FORSTTYHI - ISB$K_FORSTTYLO + 2,, SIGNED]
: 383 0442 1 PSECT (-FOR$CODE) INITIAL (
: 384 0443 1 FOR$$SIGDIS_JSB - FOR$$AA_REC_PR1, ! I/O on closed unit error
: 385 0444 1 ! I/O statement type:
: 386 0445 1 FOR$$REC_WSF1 - FOR$$AA_REC_PR1, ! WRITE sequential formatted (WSF)
: 387 0446 1 FOR$$REC_RSF1 - FOR$$AA_REC_PR1, ! READ sequential formatted (RSF)
: 388 0447 1 FOR$$REC_WSU1 - FOR$$AA_REC_PR1, ! WRITE sequential unformatted (WSU)
: 389 0448 1 FOR$$REC_RSU1 - FOR$$AA_REC_PR1, ! READ sequential unformatted (RSU)
: 390 0449 1 FOR$$REC_WD1 - FOR$$AA_REC_PR1, ! WRITE direct formatted (WDF)
: 391 0450 1 FOR$$REC_RD1 - FOR$$AA_REC_PR1, ! READ direct formatted (RDF)
: 392 0451 1 FOR$$REC_WD1 - FOR$$AA_REC_PR1, ! WRITE direct unformatted (WDU)
: 393 0452 1 FOR$$REC_RD1 - FOR$$AA_REC_PR1, ! READ direct unformatted (RDU)
: 394 0453 1 FOR$$REC_WSL1 - FOR$$AA_REC_PR1, ! WRITE sequential list-direct (WSL)
: 395 0454 1 FOR$$REC_RSL1 - FOR$$AA_REC_PR1, ! READ sequential list-directed (RSL)
: 396 0455 1 FOR$$REC_WMF1 - FOR$$AA_REC_PR1, ! ENCODE (memory formatted) (WMF)
: 397 0456 1 FOR$$REC_RMF1 - FOR$$AA_REC_PR1, ! DECODE (memory formatted) (RMF)
: 398 0457 1 FOR$$REC_WXF1 - FOR$$AA_REC_PR1, ! FORTRAN REWRITE indexed formatted (WXF)
: 399 0458 1 FOR$$REC_RKF1 - FOR$$AA_REC_PR1, ! FORTRAN READ keyed formatted (RKF)
: 400 0459 1 FOR$$REC_WXU1 - FOR$$AA_REC_PR1, ! FORTRAN REWRITE indexed unformatted (WXU)
: 401 0460 1 FOR$$REC_RKU1 - FOR$$AA_REC_PR1, ! FORTRAN READ keyed unformatted (RKU)
: 402 0461 1 FOR$$REC_WIF1 - FOR$$AA_REC_PR1, ! FORTRAN WRITE internal formatted (WIF)
: 403 0462 1 FOR$$REC_RIF1 - FOR$$AA_REC_PR1, ! FORTRAN READ internal formatted (RIF)
: 404 0463 1 FOR$$REC_WSN1 - FOR$$AA_REC_PR1, ! FORTRAN WRITE NAMELIST
: 405 0464 1 FOR$$REC_RSN1 - FOR$$AA_REC_PR1, ! FORTRAN READ NAMELIST
: 406 0465 1 FOR$$REC_WIL1 - FOR$$AA_REC_PR1, ! FORTRAN WRITE internal list-directed
: 407 0466 1 FOR$$REC_RIL1 - FOR$$AA_REC_PR1, ! FORTRAN READ internal list-directed

```

```

: 409      0467 1 !+
: 410      0468 1 ! End of I/O list record processing
: 411      0469 1 !-
: 412      0470 1
: 413      0471 1 GLOBAL
: 414      0472 1   FOR$$AA_REC_PR9 : VECTOR [ISB$K_FORSTTYHI - ISB$K_FORSTTYLO + 2,, SIGNED]
: 415      0473 1   PSECT (-FOR$CODE) INITIAL (
: 416      0474 1   FOR$$SIGDIS_JSB - FOR$$AA_REC_PR9, ! I/O on closed unit error
: 417      0475 1   ! I/O statement type:
: 418      0476 1   FOR$$REC_WSF9 - FOR$$AA_REC_PR9, ! WRITE sequential formatted (WSF)
: 419      0477 1   FOR$$REC_RSF9 - FOR$$AA_REC_PR9, ! READ sequential formatted (RSF)
: 420      0478 1   FOR$$REC_WSU9 - FOR$$AA_REC_PR9, ! WRITE sequential unformatted (WSU)
: 421      0479 1   FOR$$REC_RSU9 - FOR$$AA_REC_PR9, ! READ sequential unformatted (RSU)
: 422      0480 1   FOR$$REC_WD9 - FOR$$AA_REC_PR9, ! WRITE direct formatted (WDF)
: 423      0481 1   FOR$$REC_RD9 - FOR$$AA_REC_PR9, ! READ direct formatted (RDF)
: 424      0482 1   FOR$$REC_WDU9 - FOR$$AA_REC_PR9, ! WRITE direct unformatted (WDU)
: 425      0483 1   FOR$$REC_RDU9 - FOR$$AA_REC_PR9, ! READ direct unformatted (RDU)
: 426      0484 1   FOR$$REC_WSL9 - FOR$$AA_REC_PR9, ! WRITE sequential list-directed (WSL)
: 427      0485 1   FOR$$REC_RSL9 - FOR$$AA_REC_PR9, ! READ sequential list-directed (RSL)
: 428      0486 1   FOR$$REC_WMF9 - FOR$$AA_REC_PR9, ! ENCODE (memory formatted) (WMF)
: 429      0487 1   FOR$$REC_RMF9 - FOR$$AA_REC_PR9, ! DECODE (memory formatted) (RMF)
: 430      0488 1   FOR$$REC_WXF9 - FOR$$AA_REC_PR9, ! FORTRAN REWRITE indexed formatted (WXF)
: 431      0489 1   FOR$$REC_RKF9 - FOR$$AA_REC_PR9, ! FORTRAN READ keyed formatted (RKF)
: 432      0490 1   FOR$$REC_WXU9 - FOR$$AA_REC_PR9, ! FORTRAN REWRITE indexed unformatted (WXU)
: 433      0491 1   FOR$$REC_RKU9 - FOR$$AA_REC_PR9, ! FORTRAN READ keyed unformatted (RKU)
: 434      0492 1   FOR$$REC_WIF9 - FOR$$AA_REC_PR9, ! FORTRAN WRITE internal formatted (WIF)
: 435      0493 1   FOR$$REC_RIF9 - FOR$$AA_REC_PR9, ! FORTRAN READ internal formatted (RIF)
: 436      0494 1   FOR$$SIGDIS_JSB - FOR$$AA_REC_PR9, ! No REC9 for WRITE NAMELIST
: 437      0495 1   FOR$$SIGDIS_JSB - FOR$$AA_REC_PR9, ! No REC9 for READ NAMELIST
: 438      0496 1   FOR$$REC_WIL9 - FOR$$AA_REC_PR9, ! FORTRAN WRITE internal list-directed
: 439      0497 1   FOR$$REC_RIL9 - FOR$$AA_REC_PR9, ! FORTRAN READ internal list-directed
: 440      0498 1

```

```

442 0499 1 ROUTINE FOR$$SIGDIS_ERR : CALL_CCB NOVALUE = !
443 0500 1
444 0501 1 +-+
445 0502 1 FUNCTIONAL DESCRIPTION:
446 0503 1
447 0504 1 Signal an error from the I/O dispatch process. The error code
448 0505 1 signalled depends on the statement type. One statement type is
449 0506 1 used by CLOSE to catch dispatches on a closed unit, which can
450 0507 1 happen if the CLOSE is done as part of recursive I/O. If the
451 0508 1 statement type is not the one used by CLOSE, we have an error
452 0509 1 in the RTL (an invalid statement type).
453 0510 1 Note that, at the present time, FORTRAN does not permit
454 0511 1 recursive I/O.
455 0512 1
456 0513 1 FORMAL PARAMETERS:
457 0514 1
458 0515 1 NONE
459 0516 1
460 0517 1 IMPLICIT INPUTS:
461 0518 1
462 0519 1 ISB$B_STM_TYPE.rb.r Statement type of I/O statement
463 0520 1
464 0521 1 IMPLICIT OUTPUTS:
465 0522 1
466 0523 1 NONE
467 0524 1
468 0525 1 ROUTINE VALUE:
469 0526 1 COMPLETION CODES:
470 0527 1
471 0528 1 NONE
472 0529 1
473 0530 1 SIDE EFFECTS:
474 0531 1
475 0532 1 Signals OTSS_IO_CONCLO if the LUB is not open, or
476 0533 1 OTSS_FATINTERR if it is.
477 0534 1
478 0535 1 --
479 0536 1
480 0537 2 BEGIN
481 0538 2
482 0539 2 EXTERNAL REGISTER
483 0540 2 CCB : REF $FOR$CCB_DECL;
484 0541 2
485 0542 3 IF ( NOT .CCB [LUB$V_OPENED])
486 0543 2 THEN
487 0544 2 +-+
488 0545 2 The file must have been closed with I/O still active on it.
489 0546 2 -
490 0547 2 SIGNAL_STOP (OTSS_IO_CONCLO)
491 0548 2 ELSE
492 0549 2 +-+
493 0550 2 This must be an attempt to use an unimplemented feature. It represents
494 0551 2 an internal error in the OTS.
495 0552 2 -
496 0553 2 SIGNAL_STOP (OTSS_FATINTERR);
497 0554 2
498 0555 2 0

```


00000000* 00000000* 00000000* 00000000* 00000000* 00000000* 000D0
00000000* 00000000* 00000000* 00000000* 00000000* 00000000* 000E8
00000000* 00000000* 00000000* 00000000* 00000000* 00000000* 00100

.LONG <FOR\$\$SIGDIS JSB-FOR\$\$AA UDF PR9>, -
<FOR\$\$UDF_WF9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_RF9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_WU9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_RU9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_WF9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_RF9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_WU9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_RU9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_WL9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_RL9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_WF9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_RF9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_WF9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_RF9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_WU9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_RU9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_WF9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_RF9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_WN9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_RN9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_WL9-FOR\$\$AA_UDF_PR9>, -
<FOR\$\$UDF_RL9-FOR\$\$AA_UDF_PR9>, -

00000000* 00000000* 00000000* 00000000* 00000000* 00000000V 00114 FOR\$\$AA_REC PRO: :

00000000* 00000000* 00000000* 00000000* 00000000* 00000000* 0012C
00000000* 00000000* 00000000* 00000000* 00000000* 00000000* 00144
00000000* 00000000* 00000000* 00000000* 00000000* 00000000* 0015C

.LONG <FOR\$\$SIGDIS JSB-FOR\$\$AA_REC PRO>, -
<FOR\$\$REC_WSFO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_RSFO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_WSUO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_RSUO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_WDO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_RDO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_WDO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_RDO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_WSLO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_RSLO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_WMFO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_RMFO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_WXFO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_RKFO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_WXUO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_RKUO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_WIFO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_RIFO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_WSN0-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_RSN0-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_WILO-FOR\$\$AA_REC_PRO>, -
<FOR\$\$REC_RILO-FOR\$\$AA_REC_PRO>, -

00000000* 00000000* 00000000* 00000000* 00000000* 00000000V 00170 FOR\$\$AA_REC PR1: :

00000000* 00000000* 00000000* 00000000* 00000000* 00000000* 00188
00000000* 00000000* 00000000* 00000000* 00000000* 00000000* 001A0
00000000* 00000000* 00000000* 00000000* 00000000* 00000000* 00188

.LONG <FOR\$\$SIGDIS JSB-FOR\$\$AA_REC PR1>, -
<FOR\$\$REC_WSF1-FOR\$\$AA_REC_PR1>, -
<FOR\$\$REC_RSF1-FOR\$\$AA_REC_PR1>, -
<FOR\$\$REC_WSU1-FOR\$\$AA_REC_PR1>, -
<FOR\$\$REC_RSU1-FOR\$\$AA_REC_PR1>, -
<FOR\$\$REC_WD1-FOR\$\$AA_REC_PR1>, -
<FOR\$\$REC_RD1-FOR\$\$AA_REC_PR1>, -
<FOR\$\$REC_WD1-FOR\$\$AA_REC_PR1>, -
<FOR\$\$REC_RD1-FOR\$\$AA_REC_PR1>, -


```
<FORSSREC_WSL1-FORSSAA_REC_PR1>, -
<FORSSREC_RSL1-FORSSAA_REC_PR1>, -
<FORSSREC_WMF1-FORSSAA_REC_PR1>, -
<FORSSREC_RMF1-FORSSAA_REC_PR1>, -
<FORSSREC_WXF1-FORSSAA_REC_PR1>, -
<FORSSREC_RKF1-FORSSAA_REC_PR1>, -
<FORSSREC_WXU1-FORSSAA_REC_PR1>, -
<FORSSREC_RKU1-FORSSAA_REC_PR1>, -
<FORSSREC_WIF1-FORSSAA_REC_PR1>, -
<FORSSREC_RIF1-FORSSAA_REC_PR1>, -
<FORSSREC_WSN1-FORSSAA_REC_PR1>, -
<FORSSREC_RSN1-FORSSAA_REC_PR1>, -
<FORSSREC_WIL1-FORSSAA_REC_PR1>, -
<FORSSREC_RIL1-FORSSAA_REC_PR1>, -
00000000* 00000000* 00000000* 00000000* 00000000* 00000000V 001CC FORSSAA_REC_PR9:
                                .LONG
00000000* 00000000* 00000000* 00000000* 00000000* 00000000* 001E4
00000000* 00000000* 00000000* 00000000* 00000000* 00000000* 001FC
                                00000000* 00000000* 00000000V 00000000V 00000000* 00214
<FORSSIGDIS JSB-FORSSAA_REC_PR9>, -
<FORSSREC_WSF9-FORSSAA_REC_PR9>, -
<FORSSREC_RSF9-FORSSAA_REC_PR9>, -
<FORSSREC_WSU9-FORSSAA_REC_PR9>, -
<FORSSREC_RSU9-FORSSAA_REC_PR9>, -
<FORSSREC_WD9-FORSSAA_REC_PR9>, -
<FORSSREC_RD9-FORSSAA_REC_PR9>, -
<FORSSREC_WD9-FORSSAA_REC_PR9>, -
<FORSSREC_RD9-FORSSAA_REC_PR9>, -
<FORSSREC_WSL9-FORSSAA_REC_PR9>, -
<FORSSREC_RSL9-FORSSAA_REC_PR9>, -
<FORSSREC_WMF9-FORSSAA_REC_PR9>, -
<FORSSREC_RMF9-FORSSAA_REC_PR9>, -
<FORSSREC_WXF9-FORSSAA_REC_PR9>, -
<FORSSREC_RKF9-FORSSAA_REC_PR9>, -
<FORSSREC_WXU9-FORSSAA_REC_PR9>, -
<FORSSREC_RKU9-FORSSAA_REC_PR9>, -
<FORSSREC_WIF9-FORSSAA_REC_PR9>, -
<FORSSREC_RIF9-FORSSAA_REC_PR9>, -
<FORSSIGDIS JSB-FORSSAA_REC_PR9>, -
<FORSSIGDIS JSB-FORSSAA_REC_PR9>, -
<FORSSREC_WIL9-FORSSAA_REC_PR9>, -
<FORSSREC_RIL9-FORSSAA_REC_PR9>, -
.EXTRN OTSS FATINTERR, OTSS IO CONCLD
.EXTRN FORSSREC_RKF1, FORSSREC_RKF9
.EXTRN FORSSREC_RKU1, FORSSREC_RKU9
.EXTRN FORSSREC_WXF1, FORSSREC_WXF9
.EXTRN FORSSREC_WXU1, FORSSREC_WXU9
.EXTRN FORSSREC_WIF1, FORSSREC_WIF9
.EXTRN FORSSREC_RIF1, FORSSREC_RIF9
.EXTRN FORSSREC_WSN1, FORSSREC_WIL1
.EXTRN FORSSREC_WIL9, FORSSREC_RIL1
.EXTRN FORSSREC_RIL9
.WEAK FORSSUDF_RF0, FORSSUDF_RF1
.WEAK FORSSUDF_RF9, FORSSUDF_WF0
.WEAK FORSSUDF_WF1, FORSSUDF_WF9
.WEAK FORSSUDF_RU0, FORSSUDF_RU1
.WEAK FORSSUDF_RU9, FORSSUDF_WU0
.WEAK FORSSUDF_WU1, FORSSUDF_WU9
.WEAK FORSSUDF_RL0, FORSSUDF_RL1
.WEAK FORSSUDF_RL9, FORSSUDF_WL0
```

```
.WEAK FOR$$UDF_WL1, FOR$$UDF_WL9
.WEAK FOR$$UDF_RN0, FOR$$UDF_RN9
.WEAK FOR$$UDF_WN0, FOR$$UDF_WN9
.WEAK FOR$$REC_RSFO, FOR$$REC_RSF1
.WEAK FOR$$REC_RSFO, FOR$$REC_WSFO
.WEAK FOR$$REC_WSF1, FOR$$REC_WSF9
.WEAK FOR$$REC_RSU0, FOR$$REC_RSU1
.WEAK FOR$$REC_RSU9, FOR$$REC_WSU0
.WEAK FOR$$REC_WSU1, FOR$$REC_WSU9
.WEAK FOR$$REC_RDO, FOR$$REC_RD1
.WEAK FOR$$REC_RD9, FOR$$REC_WDO
.WEAK FOR$$REC_WD1, FOR$$REC_WD9
.WEAK FOR$$REC_RSL0, FOR$$REC_RSL1
.WEAK FOR$$REC_RSL9, FOR$$REC_WSL0
.WEAK FOR$$REC_WSL1, FOR$$REC_WSL9
.WEAK FOR$$REC_RMF0, FOR$$REC_RMF1
.WEAK FOR$$REC_RMF9, FOR$$REC_WMF0
.WEAK FOR$$REC_WMF1, FOR$$REC_WMF9
.WEAK FOR$$REC_RKFO, FOR$$REC_RKU0
.WEAK FOR$$REC_WXF0, FOR$$REC_WXU0
.WEAK FOR$$REC_WIFO, FOR$$REC_RIFO
.WEAK FOR$$REC_WSN0, FOR$$REC_RSN0
.WEAK FOR$$REC_RSN1, FOR$$REC_WILO
.WEAK FOR$$REC_RILO
```

0000 0000 FOR\$\$SIGDIS ERR:

						.WORD	Save nothing	:	0499
	08	FC	AB	E8	00002	BLBS	-4(CCB), 1\$:	0542
		00000000G	8F	DD	00006	PUSHL	#OTSS_IO_CONCLO	:	0547
			06	11	0000C	BRB	2\$:	
		00000000G	8F	DD	0000E 1\$:	PUSHL	#OISS_FATINTERR	:	0553
00000000G	00		01	FB	00014 2\$:	CALLS	#1, LIB\$STOP	:	
			04	0001B		RET		:	0556

; Routine Size: 28 bytes, Routine Base: _FOR\$CODE + 0228

```
501 0557 1 ROUTINE FOR$$SIGDIS_JSB : JSB_UDFO NOVALUE = !
502 0558 1
503 0559 1 |++
504 0560 1 | FUNCTIONAL DESCRIPTION:
505 0561 1 |
506 0562 1 |     Signal an error from the I/O dispatch process. The error code
507 0563 1 |     signalled depends on the statement type. One statement type is
508 0564 1 |     used by CLOSE to catch dispatches on a closed unit, which can
509 0565 1 |     happen if the CLOSE is done as part of recursive I/O. If the
510 0566 1 |     statement type is not the one used by CLOSE, we have an error
511 0567 1 |     in the RTL (an invalid statement type).
512 0568 1 |     Note that, at the present time, FORTRAN does not permit
513 0569 1 |     recursive I/O.
514 0570 1 |
515 0571 1 | FORMAL PARAMETERS:
516 0572 1 |
517 0573 1 |     NONE
518 0574 1 |
519 0575 1 | IMPLICIT INPUTS:
520 0576 1 |
521 0577 1 |     ISB$B_STTM_TYPE.rb.r           Statement type of I/O statement
522 0578 1 |
523 0579 1 | IMPLICIT OUTPUTS:
524 0580 1 |
525 0581 1 |     NONE
526 0582 1 |
527 0583 1 | ROUTINE VALUE:
528 0584 1 | COMPLETION CODES:
529 0585 1 |
530 0586 1 |     NONE
531 0587 1 |
532 0588 1 | SIDE EFFECTS:
533 0589 1 |
534 0590 1 |     Signals OTSS$ IO_CONCLO if the LUB is not open, or
535 0591 1 |     OTSS$FATINTERR if it is.
536 0592 1 |
537 0593 1 | --
538 0594 1 |
539 0595 2 | BEGIN
540 0596 2 |
541 0597 2 | EXTERNAL REGISTER
542 0598 2 |     CCB : REF $FOR$CCB_DECL;
543 0599 2 |
544 0600 3 | IF ( NOT .CCB [LUB$V_OPENED])
545 0601 2 | THEN
546 0602 2 | |++
547 0603 2 | | The file must ha     en closed with I/O still active on it.
548 0604 2 | |--
549 0605 2 | |     SIGNAL_S:OP (OTSS$ IO_CONCLO)
550 0606 2 | | ELSE
551 0607 2 | | |++
552 0608 2 | | | This must be an attempt to use an unimplemented feature. It represents
553 0609 2 | | | an internal error in the OTS.
554 0610 2 | | |--
555 0611 2 | |     SIGNAL_STOP (OTSS$FATINTERR);
556 0612 2 |
557 0613 2 |     0
```

: 558 0614 1 END; !End of FOR\$\$SIGDIS_JSB

08	FC	AB	E8	00000	FOR\$\$SIGDIS_JSB:		
					BLBS	-4(CCB), 1\$: 0600
	00000000G	8F	DD	00004	PUSHL	#OTSS_IO_CONCLO	: 0605
		06	11	0000A	BRB	2\$:
	00000000G	8F	DD	0000C	1\$: PUSHL	#OTSS_FATINTERR	: 0611
00000000G	00	01	FB	00012	2\$: CALLS	#1, LIB\$STOP	:
			05	00019	RSB		: 0614

: Routine Size: 26 bytes, Routine Base: _FOR\$CODE + 0244

: 559 0615 1 END !End of module
: 560 0616 1
: 561 0617 0 ELUDOM

.EXTRN LIB\$STOP

PSECT SUMMARY

Name	Bytes	Attributes
_FOR\$CODE	606	NOVEC,NOWRT, RD, EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

Library Statistics

File	Total	Symbols Loaded	Percent	Pages Mapped	Processing Time
_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	0	0	581	00:01.0
_\$255\$DUA28:[FORRTL.OBJ]FORLIB.L32;1	711	185	26	52	00:00.6
_\$255\$DUA28:[FORRTL.OBJ]RTLLIB.L32;1	36	0	0	8	00:00.1

COMMAND QUALIFIERS

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

: Size: 54 code + 552 data bytes
: Run Time: 00:10.7

: Elapsed Time: 00:32.2
: Lines/CPU Min: 3476
: Lexemes/CPU-Min: 10061
: Memory Used: 110 pages
: Compilation Complete

