Results of Test Program Run Through DAVE to Produce all Error, Warning, and Message Diagnostics

by

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NOTE -- FOR MISSING SUBPROGRAMS THE FOLLOWING I/O BEHAVIOR HAS BEEN SIMULATED.
A. FOR FUNCTION SUBPROGRAMS, THE FUNCTION NAME HAS BEEN CLASSIFIED AS STRICT OUTPUT AND ALL ARGUMENTS AS STRICT INPUT, NON-OUTPUT.
B. FOR SUBROUTINE SUBPROGRAMS, ALL ARGUMENTS HAVE BEEN CLASSIFIED AS STRICT INPUT, NON-OUTPUT.
A SIMULATED SUBPROGRAM IS ASSUMED TO USE NO COMMON VARIABLES. THE NUMBER AND DIMENSIONS OF ITS DUMMY ARGUMENTS HAVE BEEN INFERRED FROM THE FIRST INVOCATION OF THE SUBPROGRAM BY THE PROGRAM UNIT INDICATED BELOW.

SIMULATED SUBPROGRAM  CALLER
---------------------  ------
---*FSIM*---          -*SYSMAIN*-
---*SUBSIM*---        -*SYSMAIN*-

USER OPTIONS SPECIFIED THIS RUN
--------------------------------

1. SIMULATE I/O BEHAVIOR FOR MISSING SUBPROGRAMS (SI= ON).
3. SUPPRESS DIAGNOSTICS (SU=OFF).
## FREQUENCY

<table>
<thead>
<tr>
<th>SUBPROGRAM</th>
<th>ERRORS</th>
<th>WARNINGS</th>
<th>MESSAGES</th>
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## DIAGNOSTIC SUMMARY -- PART 2

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## Call Graph

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<tr>
<td>SUBSIM</td>
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</tr>
</tbody>
</table>

- E101
- SUB103
- SUB105
- SUB106
- SUB208
- W201
- SUB215
- SUB
- FSIM
- SUBSIM
$ IN THE CONTINUATION FIELD INDICATES THE EXPANSION
OF THE LOGICAL IF STATEMENT ON THE PREVIOUS LINE

BLOCK

0 C PROGRAM TO TEST ALL DAVES ERRORS WARNINGS AND MESSAGES.
0 C BEFORE EACH PIECE OF CODE IS A SHORT DESCRIPTION OF THE
0 C TYPE OF ERROR WARNING OR MESSAGE TO BE OUTPUT.
0 C
0 C
1 COMMON/B1/CA1,BA
1 COMMON/BLK1/CA,D218,Y228(6)
1 EXTERNAL SUBEX
1 DIMENSION XDAT(5),XDT(5,2)
1 INTEGER I236
1 DATA I220/1/,X221/1./
1 LASRF(X,Y)=5.*E101(C)+X+Y
2 C=1.
3 B=1.
0 C
0 C WARNING 209
0 C COMMON VAR REFERENCED BEFORE BEING DEFINED
0 C
4 IF(A.EQ.B)
5 $ X = CA1
0 C
0 C ERROR 109
0 C COMMON VAR IS REF BEFORE BEING DEFINED
0 C
6 X = M+CA
0 C GENERATES ERROR 101 INSIDE FUNCTION
0 C GENERATES ERROR 102 INSIDE FUNCTION
0 C
7 R = E101(1.)
0 C
0 C ERROR 103
0 C ACTUAL ARGUMENT IS CONSTANT OR EXPRESSION AND IS ASSIGNED A
0 C VALUE ON ALL PATHS IN CALLED SUBPROGRAM
0 C WARNING 203
0 C SAME AS 103 BUT SOME PATHS
0 C
8 CALL SUB103(3,B+C,Y+1)
0 C
0 C ERROR 104
0 C NUMBER OF ARGUMENTS DOESNT MATCH
0 C
9 CALL SUB103(A)
0 C
0 C ERROR 105
0 C EXTERNAL IS USED AS A VAR IN CALLED ROUTINE
0 C
0 C WARNING 204
0 C CONSTANT IS NEVER REF IN SUBPROGRAM
CALL SUB105(SUBEX,3)

ERROR 106
EXTERNAL IS ASSIGNED A VALUE ON ALL PATHS IN SUBPROGRAM
WARNING 203
CONSTANT IS ASSIGNED A VALUE ON SOME PATHS
WARNING 213
ARGUMENTS HAVE DIFFERENT DATA TYPES

CALL SUB106(SUBEX,3)

WARNING 208
COMMON VAR (CA) IS USED AS A DUMMY ARG. AND IS COMMON IN SUBPROGRAM

CALL SUB208(A,CA)

ERROR 111
CONTROL VAR IS REF OUTSIDE OF LOOP
ERROR 112
LOCAL VAR IS REF BUT NOT DEFINED

DO 10 I = 1, 10
   K = LOC + 1
10 CONTINUE
   K = I + 6

WARNING 205 AND 206
EXTERNAL ,SUBEX, IS REFERENCED AS A VAR ON SOME PATHS
AND IS ASSIGNED A VALUE ON SOME PATHS

CALL SUB(1.,SUBEX)

ERROR 108
COMMON VAR IS ASSOCIATED WITH A DUMMY VAR
FUNCTION W201 CAUSES WARNING 201 AND 202

I = W201(CA)

WARNING 215
ARGUMENTS HAVE DIFFERENT DIMENSIONALITY
WARNING 216 AND 217
COMMON VARIABLE ASSIGNED A VALUE ON ALL(SOME) PATHS BUT
BLOCK NOT AVAILABLE TO CALLER
WARNING 218 AND 219
COMMON VARIABLE INITIALIZED IN BLOCK DATA IS ASSIGNED A VALUE
ON ALL(SOME) PATHS BUT BLOCK IS NOT AVAILABLE TO CALLER

CALL SUB215(XDAT,B,C)

WARNING 226
TYPE II ANOMALY ON ALL PATHS, COMMON VAR. IN MAIN PROGRAM
CA = 1.
CA = 2.

WARNING 227
TYPE II ANOMALY ON SOME PATHS, COMMON VAR. IN MAIN PROGRAM
BA=CA

IF(D219.EQ.0)
    $ CA=3.+BA
COMMON ARRAY IS ASSIGNED A VALUE AND NOT REFERENCED

Y228(1)=6.

LOCAL VAR IS ASSIGNED A VALUE AND NOT REFERENCED

X229=6.

SAME AS ABOVE BUT ASSIGNED A VALUE AGAIN

X230 = 1.
IF(CA.EQ.L)
$X230=3.$

LOCAL ARRAY XDAT IS ASSIGNED A VALUE AND NOT USED

XDAT(5)=1.

ILLEGAL SIDE EFFECT, VAR APPEARS TWICE IN BELOW STMT.

I = W201(X)+X

SAME AS 232 BUT WITH COMMON VAR

I = W201(CA)+CA

GLOBAL VAR C IS USED TWICE

I = LASRF(2.,5.)+C

SIMULATION OF FUNCTION CALL

I = FSIM(CA)

SIMULATE SUBROUTINE CALL

CALL SUBSIM(X,A,B,D)

STOP

END

ERRORS

---

ERROR NUMBER

--------

DESCRIPTION

** 103 **

AN ACTUAL ARGUMENT IS AN EXPRESSION OR CONSTANT, YET THE CORRESPONDING DUMMY ARGUMENT IS ASSIGNED A VALUE ON ALL PATHS. CALLING SUBPROGRAM CALLED SUBPROGRAM
** 103 ** BLOCK NO. 8
AN ACTUAL ARGUMENT IS AN EXPRESSION OR CONSTANT, YET THE
CORRESPONDING DUMMY ARGUMENT IS ASSIGNED A VALUE ON ALL PATHS.
CALLING SUBPROGRAM CALLED SUBPROGRAM
ARGUMENT POSITION
**SYSMAIN** INTEGER 1
---*E101*---- ---*-I*-----

** 103 ** BLOCK NO. 8
AN ACTUAL ARGUMENT IS AN EXPRESSION OR CONSTANT, YET THE
CORRESPONDING DUMMY ARGUMENT IS ASSIGNED A VALUE ON ALL PATHS.
CALLING SUBPROGRAM CALLED SUBPROGRAM
ARGUMENT POSITION
**SYSMAIN** EXPRESSION 2
---*SUB103*------- ---*X*-----

** 103 ** BLOCK NO. 11
AN ACTUAL ARGUMENT IS AN EXPRESSION OR CONSTANT, YET THE
CORRESPONDING DUMMY ARGUMENT IS ASSIGNED A VALUE ON ALL PATHS.
CALLING SUBPROGRAM CALLED SUBPROGRAM
ARGUMENT POSITION
**SYSMAIN** INTEGER 2
---*SUB106*------- ---*Z*-----

** 104 ** BLOCK NO. 9
THE NUMBER OF DUMMY ARGUMENTS IN CALLED SUBPROGRAM --*SUB103*--
DOES NOT AGREE WITH THE NUMBER OF ACTUAL ARGUMENTS SUPPLIED
BY CALLING SUBPROGRAM --*SYSMAIN*--.

** 105 ** BLOCK NO. 10
AN ACTUAL ARGUMENT IS A PROCEDURE DECLARED EXTERNAL, YET THE
CORRESPONDING DUMMY ARGUMENT IS REFERENCED AS A VARIABLE
ON ALL PATHS.
CALLING SUBPROGRAM CALLED SUBPROGRAM
ARGUMENT POSITION
**SYSMAIN** ---*SUBEX** 1
---*SUB105*------ ---*X*-----

** 106 ** BLOCK NO. 10
AN ACTUAL ARGUMENT IS A PROCEDURE DECLARED EXTERNAL, YET THE
CORRESPONDING DUMMY ARGUMENT, USED AS A VARIABLE, IS ASSIGNED
A VALUE ON ALL PATHS.
CALLING SUBPROGRAM CALLED SUBPROGRAM
ARGUMENT POSITION
**SYSMAIN** ---*SUBEX** 1
---*SUB105*------ ---*X*-----

** 106 ** BLOCK NO. 11
AN ACTUAL ARGUMENT IS A PROCEDURE DECLARED EXTERNAL, YET THE
CORRESPONDING DUMMY ARGUMENT, USED AS A VARIABLE, IS ASSIGNED
A VALUE ON ALL PATHS.
** 108 **  BLOCK NO.  18
A SUBPROGRAM REFERENCE CAUSES DUMMY ARGUMENT ----*X*----
TO BECOME ASSOCIATED WITH A COMMON VARIABLE IN THE CALLED
SUBPROGRAM. ----*X*---- IS ASSIGNED A VALUE ON ALL PATHS.
CALLING SUBPROGRAM     CALLED SUBPROGRAM
          -*SYSMAIN*-       -*SUB106*-
ARGUMENT          -*SUBEX*-       ----*X*-----
POSITION           1             1

CALLING SUBPROGRAM     CALLED SUBPROGRAM
          -*SYSMAIN*-       -*W201*--
ARGUMENT          ----*CA*----       ----*X*-----
COMMON VARIABLE          ----*CA*----       ----*CA*----

** 108 **  BLOCK NO.  32
A SUBPROGRAM REFERENCE CAUSES DUMMY ARGUMENT ----*X*----
TO BECOME ASSOCIATED WITH A COMMON VARIABLE IN THE CALLED
SUBPROGRAM. ----*X*---- IS ASSIGNED A VALUE ON ALL PATHS.
CALLING SUBPROGRAM     CALLED SUBPROGRAM
          -*SYSMAIN*-       -*W201*--
ARGUMENT          ----*CA*----       ----*X*-----
COMMON VARIABLE          ----*CA*----       ----*CA*----

** 109 **  COMMON VARIABLE ----*Y228*-- IN COMMON BLOCK ----*BLK1*-- IS
REFERENCED ON ALL PATHS IN THE MAIN PROGRAM, YET IT HAS NOT
PREVIOUSLY BEEN ASSIGNED A VALUE, NOR HAS IT BEEN INITIALIZED
IN BLOCK DATA. (SEE NOTE 1)

** 109 **  COMMON VARIABLE ----*CA*---- IN COMMON BLOCK ----*BLK1*-- IS
REFERENCED ON ALL PATHS IN THE MAIN PROGRAM, YET IT HAS NOT
PREVIOUSLY BEEN ASSIGNED A VALUE, NOR HAS IT BEEN INITIALIZED
IN BLOCK DATA. (SEE NOTE 1)

** 110 **  COMMON VARIABLE ----*M*---- IS REFERENCED ON ALL PATHS IN
CALLED SUBPROGRAM ----*E101*--, YET IT IS NOT INITIALIZED. IT
DOES NOT APPEAR IN BLOCK DATA, AND ITS COMMON BLOCK ----*E110*--
IS NOT AVAILABLE TO CALLING SUBPROGRAM --*SYSMAIN*--. (SEE
NOTE 1)

** 110 **  COMMON VARIABLE ----*B*---- IS REFERENCED ON ALL PATHS IN
CALLED SUBPROGRAM --*SUB103*--, YET IT IS NOT INITIALIZED. IT
DOES NOT APPEAR IN BLOCK DATA, AND ITS COMMON BLOCK ----*BLK*--
IS NOT AVAILABLE TO CALLING SUBPROGRAM --*SYSMAIN*--. (SEE
NOTE 1)

** 110 **  COMMON VARIABLE ----*D*---- IS REFERENCED ON ALL PATHS IN
CALLED SUBPROGRAM --*SUB208*--, YET IT IS NOT INITIALIZED. IT
DOES NOT APPEAR IN BLOCK DATA, AND ITS COMMON BLOCK ----*BLK*--
IS NOT AVAILABLE TO CALLING SUBPROGRAM --*SYSMAIN*--. (SEE
NOTE 1)

** 111 **  CONTROL VARIABLE ----*I*---- BECOMES UNDEFINED UPON SATISFACTION
OF ITS DO LOOP AT BLOCK NO.  15, YET IS REFERENCED ON ALL
PATHS THEREAFTER.
** 112 **
LOCAL VARIABLE ---*XDAT*--- IS REFERENCED BEFORE BEING ASSIGNED
A VALUE ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 - 19

** 112 **
LOCAL VARIABLE ---*A*---- IS REFERENCED BEFORE BEING ASSIGNED
A VALUE ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 - 4

** 112 **
LOCAL VARIABLE ---*M*---- IS REFERENCED BEFORE BEING ASSIGNED
A VALUE ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 - 6

** 112 **
LOCAL VARIABLE ---*Y*---- IS REFERENCED BEFORE BEING ASSIGNED
A VALUE ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 - 8

** 112 **
LOCAL VARIABLE ---*LOC*---- IS REFERENCED BEFORE BEING ASSIGNED
A VALUE ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 - 14

** 112 **
LOCAL VARIABLE ---*D219*-- IS REFERENCED BEFORE BEING ASSIGNED
A VALUE ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 - 23

** 112 **
LOCAL VARIABLE ---*L*----- IS REFERENCED BEFORE BEING ASSIGNED
A VALUE ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 - 28

** 112 **
LOCAL VARIABLE ---*D*----- IS REFERENCED BEFORE BEING ASSIGNED
A VALUE ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 - 35

WARNINGS
---

WARNING NUMBER
------

DESCRIPTION
----------
** 203 **
BLOCK NO.  8
AN ACTUAL ARGUMENT IS AN EXPRESSION OR CONSTANT, YET THE
CORRESPONDING DUMMY ARGUMENT IS ASSIGNED A VALUE ON SOME PATHS.
CALLING SUBPROGRAM   CALLED SUBPROGRAM
-*SYSMAIN*           -*SUB103*
ARGUMENT             REAL
POSITION             3

** 204 **
BLOCK NO.  7
AN ACTUAL ARGUMENT IS AN EXPRESSION OR CONSTANT, YET THE
CORRESPONDING DUMMY ARGUMENT IS NEVER REFERENCED.
CALLING SUBPROGRAM   CALLED SUBPROGRAM
-*SYSMAIN*           -*E101*
ARGUMENT             REAL
POSITION             1

** 204 **
BLOCK NO.  8
AN ACTUAL ARGUMENT IS AN EXPRESSION OR CONSTANT, YET THE
CORRESPONDING DUMMY ARGUMENT IS NEVER REFERENCED.
CALLING SUBPROGRAM   CALLED SUBPROGRAM
-*SYSMAIN*           -*SUB103*
ARGUMENT             INTEGER
POSITION             1

** 204 **
BLOCK NO.  8
AN ACTUAL ARGUMENT IS AN EXPRESSION OR CONSTANT, YET THE
CORRESPONDING DUMMY ARGUMENT IS NEVER REFERENCED.
CALLING SUBPROGRAM   CALLED SUBPROGRAM
-*SYSMAIN*           -*SUB103*
ARGUMENT             EXPRESSION
POSITION             2

** 204 **
BLOCK NO.  10
AN ACTUAL ARGUMENT IS AN EXPRESSION OR CONSTANT, YET THE
CORRESPONDING DUMMY ARGUMENT IS NEVER REFERENCED.
CALLING SUBPROGRAM   CALLED SUBPROGRAM
-*SYSMAIN*           -*SUB105*
ARGUMENT             INTEGER
POSITION             2

** 204 **
BLOCK NO.  11
AN ACTUAL ARGUMENT IS AN EXPRESSION OR CONSTANT, YET THE
CORRESPONDING DUMMY ARGUMENT IS NEVER REFERENCED.
CALLING SUBPROGRAM   CALLED SUBPROGRAM
-*SYSMAIN*           -*SUB106*
ARGUMENT             INTEGER
POSITION             2

** 205 **
BLOCK NO.  17
AN ACTUAL ARGUMENT IS A PROCEDURE DECLARED EXTERNAL, YET THE
CORRESPONDING DUMMY ARGUMENT IS REFERENCED AS A VARIABLE ON
SOME PATHS.
CALLING SUBPROGRAM   CALLED SUBPROGRAM
-*SYSMAIN*           -*SUB*
** 206 ** BLOCK NO. 17
AN ACTUAL ARGUMENT IS A PROCEDURE DECLARED EXTERNAL, YET THE
CORRESPONDING DUMMY ARGUMENT, USED AS A VARIABLE, IS ASSIGNED
A VALUE ON SOME PATHS.

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<th>CALLING SUBPROGRAM</th>
<th>CALLED SUBPROGRAM</th>
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<tr>
<td>POSITION</td>
<td>-<em>B</em>-</td>
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** 208 ** BLOCK NO. 12
A SUBPROGRAM REFERENCE CAUSES DUMMY ARGUMENT -*X*- TO BECOME ASSOCIATED WITH A COMMON VARIABLE IN THE CALLED
SUBPROGRAM. -*X*- IS ASSIGNED A VALUE ON SOME PATHS.

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<tr>
<th>CALLING SUBPROGRAM</th>
<th>CALLED SUBPROGRAM</th>
</tr>
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<tbody>
<tr>
<td>-<em>SYSMAIN</em>-</td>
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<tr>
<td>ARGUMENT</td>
<td>-<em>CA</em>-</td>
</tr>
<tr>
<td>COMMON VARIABLE</td>
<td>-<em>CA</em>-</td>
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</table>

** 209 ** COMMON VARIABLE -*CA1*- IN COMMON BLOCK -*B1*- IS
REFERENCED ON SOME PATHS IN THE MAIN PROGRAM, YET IT HAS NOT
PREVIOUSLY BEEN ASSIGNED A VALUE, NOR HAS IT BEEN INITIALIZED
IN BLOCK DATA. (SEE NOTE 1)

** 210 ** COMMON VARIABLE -*C*- IS REFERENCED ON SOME PATHS IN
CALLED SUBPROGRAM -*SUB103*-; YET IT IS NOT INITIALIZED.
IT DOES NOT APPEAR IN BLOCK DATA, AND ITS COMMON BLOCK
-*BLK*- IS NOT AVAILABLE TO CALLING SUBPROGRAM
-*SYSMAIN*-.* (SEE NOTE 1)

** 210 ** COMMON VARIABLE -*D*- IS REFERENCED ON SOME PATHS IN
CALLED SUBPROGRAM -*SUB103*-; YET IT IS NOT INITIALIZED.
IT DOES NOT APPEAR IN BLOCK DATA, AND ITS COMMON BLOCK
-*BLK*- IS NOT AVAILABLE TO CALLING SUBPROGRAM
-*SYSMAIN*-.* (SEE NOTE 1)

** 210 ** COMMON VARIABLE -*B*- IS REFERENCED ON SOME PATHS IN
CALLED SUBPROGRAM -*SUB208*-; YET IT IS NOT INITIALIZED.
IT DOES NOT APPEAR IN BLOCK DATA, AND ITS COMMON BLOCK
-*BLK*- IS NOT AVAILABLE TO CALLING SUBPROGRAM
-*SYSMAIN*-.* (SEE NOTE 1)

** 213 ** BLOCK NO. 9
CORRESPONDING ARGUMENTS HAVE DIFFERENT DATA TYPES.

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** 213 ** BLOCK NO. 11
CORRESPONDING ARGUMENTS HAVE DIFFERENT DATA TYPES.
** 214 **
CORRESPONDING COMMON VARIABLES IN COMMON BLOCK --*BLK1--
HAVE DIFFERENT DATA TYPES.

CALLING SUBPROGRAM CALLED SUBPROGRAM
*SYSMAIN* --*SUB106*

VARIABLE
-----**CA**-----

DATA TYPE
REAL

** 215 **
BLOCK NO. 19
CORRESPONDING ARGUMENTS HAVE DIFFERENT DIMENSIONALITY.

CALLING SUBPROGRAM CALLED SUBPROGRAM
*SYSMAIN* --*SUB103*

ARGUMENT
-----**XDAT**-----

POSITION
1

DIMENSIONS
1 2

** 216 **
COMMON VARIABLE -----**M**----- IS ASSIGNED A VALUE ON ALL PATHS
IN CALLED SUBPROGRAM --*E101*--, YET ITS COMMON BLOCK
-----**E110**-- IS NOT AVAILABLE TO CALLING SUBPROGRAM --*SYSMAIN*--.
HENCE, A COMPUTED VALUE WILL BE LOST. (SEE NOTE 1)

** 216 **
COMMON VARIABLE -----**B**----- IS ASSIGNED A VALUE ON ALL PATHS
IN CALLED SUBPROGRAM --*SUB103*--, YET ITS COMMON BLOCK
-----**BLK**---- IS NOT AVAILABLE TO CALLING SUBPROGRAM --*SYSMAIN*--.
HENCE, A COMPUTED VALUE WILL BE LOST. (SEE NOTE 1)

** 216 **
COMMON VARIABLE -----**D**----- IS ASSIGNED A VALUE ON ALL PATHS
IN CALLED SUBPROGRAM --*SUB103*--, YET ITS COMMON BLOCK
-----**BLK**---- IS NOT AVAILABLE TO CALLING SUBPROGRAM --*SYSMAIN*--.
HENCE, A COMPUTED VALUE WILL BE LOST. (SEE NOTE 1)

** 216 **
COMMON VARIABLE -----**C**----- IS ASSIGNED A VALUE ON ALL PATHS
IN CALLED SUBPROGRAM --*SUB215*--, YET ITS COMMON BLOCK
-----**BLK**---- IS NOT AVAILABLE TO CALLING SUBPROGRAM
--*SYSMAIN*--. HENCE, A COMPUTED VALUE MAY BE LOST. (SEE
NOTE 1)

** 217 **
COMMON VARIABLE -----**C**----- IS ASSIGNED A VALUE ON SOME PATHS
IN CALLED SUBPROGRAM --*SUB103*--, YET ITS COMMON BLOCK
-----**BLK**---- IS NOT AVAILABLE TO CALLING SUBPROGRAM
--*SYSMAIN*--. HENCE, A COMPUTED VALUE MAY BE LOST. (SEE
NOTE 1)

** 217 **
COMMON VARIABLE -----**D**----- IS ASSIGNED A VALUE ON SOME PATHS
IN CALLED SUBPROGRAM --*SUB215*--, YET ITS COMMON BLOCK
-----**BLK**---- IS NOT AVAILABLE TO CALLING SUBPROGRAM
--*SYSMAIN*--. HENCE, A COMPUTED VALUE MAY BE LOST. (SEE
NOTE 1)
** 218 ** COMMON VARIABLE ----*T*---- IS INITIALIZED IN BLOCK DATA. IT IS ASSIGNED A VALUE ON ALL PATHS IN CALLED SUBPROGRAM --*SUB215*-, YET ITS COMMON BLOCK ----*IBD*---- IS NOT AVAILABLE TO CALLING SUBPROGRAM --*SYSMAIN*-. HENCE, UNDEFINEDNESS WILL OCCUR UPON EXIT FROM --*SUB215*-. (SEE NOTE 2)

** 219 ** COMMON VARIABLE ----*W*---- IS INITIALIZED IN BLOCK DATA. IT IS ASSIGNED A VALUE ON SOME PATHS IN CALLED SUBPROGRAM --*SUB215*-, YET ITS COMMON BLOCK ----*IBD*---- IS NOT AVAILABLE TO CALLING SUBPROGRAM --*SYSMAIN*-. HENCE, UNDEFINEDNESS MAY OCCUR UPON EXIT FROM --*SUB215*-. (SEE NOTE 2)

** 226 ** IN THE MAIN PROGRAM, COMMON VARIABLE ----*CA*---- IS ASSIGNED A VALUE IN BLOCK NO. 20 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED, ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
20 21

** 227 ** IN THE MAIN PROGRAM, COMMON VARIABLE ----*BA*---- IS ASSIGNED A VALUE IN BLOCK NO. 22 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED, ON SOME PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
22 23 25 - 36

** 228 ** IN THE MAIN PROGRAM, AN ELEMENT OF THE COMMON ARRAY ----*Y228*-- IS ASSIGNED A VALUE IN BLOCK NO. 25 AND THE ARRAY IS NOT SUBSEQUENTLY REFERENCED ON ANY PATH.

** 229 ** LOCAL VARIABLE ----*I220*--- IS ASSIGNED A VALUE IN BLOCK NO. 1 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED, ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 - 36

** 229 ** LOCAL VARIABLE ----*X221*--- IS ASSIGNED A VALUE IN BLOCK NO. 1 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED, ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 - 36

** 229 ** LOCAL VARIABLE ----*X*---- IS ASSIGNED A VALUE IN BLOCK NO. 5 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED, ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
5 6

** 229 ** LOCAL VARIABLE ----*K*---- IS ASSIGNED A VALUE IN BLOCK NO. 14 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED,
ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
14 15 16

** 229 **
LOCAL VARIABLE ---*X229*--- IS ASSIGNED A VALUE IN BLOCK
NO. 26 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE
BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED,
ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
26 - 36

** 229 **
LOCAL VARIABLE ---*X230*--- IS ASSIGNED A VALUE IN BLOCK
NO. 27 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE
BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED,
ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
27 28 29

** 231 **
AN ELEMENT OF THE LOCAL ARRAY ---*XDAT*--- IS ASSIGNED A VALUE
IN BLOCK NO. 30 AND THE ARRAY IS NOT SUBSEQUENTLY
REFERENCED ON ANY PATH.

** 232 **
BLOCK NO. 31
A POSSIBLE ILLEGAL SIDE EFFECT HAS BEEN DETECTED. IT OCCURS
VIA A VARIABLE PASSED IN AN ARGUMENT LIST. THIS VARIABLE
HAS APPEARED AT LEAST TWICE IN A STATEMENT -- IN ONE
APPEARANCE IT IS USED AS STRICT INPUT AND IN THE OTHER AS
STRICT OUTPUT.

CALLING SUBPROGRAM    CALLED SUBPROGRAM
-*SYSMAIN*-            ----*W201*--
ARGUMENT               ----*X*----
POSITION               1

** 232 **
BLOCK NO. 32
A POSSIBLE ILLEGAL SIDE EFFECT HAS BEEN DETECTED. IT OCCURS
VIA A VARIABLE PASSED IN AN ARGUMENT LIST. THIS VARIABLE
HAS APPEARED AT LEAST TWICE IN A STATEMENT -- IN ONE
APPEARANCE IT IS USED AS STRICT INPUT AND IN THE OTHER AS
STRICT OUTPUT.

CALLING SUBPROGRAM    CALLED SUBPROGRAM
-*SYSMAIN*-            ----*W201*--
ARGUMENT               ----*CA*----
POSITION               1

** 233 **
BLOCK NO. 18
A POSSIBLE ILLEGAL SIDE EFFECT HAS BEEN DETECTED. IT OCCURS
VIA A COMMON VARIABLE WHICH HAS BEEN REFERENCED (POSSIBLY
INDIRECTLY) AT LEAST TWICE IN A STATEMENT -- IN ONE APPEAR-
ANCE IT IS USED AS STRICT INPUT AND IN THE OTHER AS STRICT
OUTPUT.

CALLING SUBPROGRAM    CALLED SUBPROGRAM
-*SYSMAIN*-            ----*W201*--
VARIABLE               ----*CA*----
COMMON BLOCK           ----*BLK1*--
** 233 ** BLOCK NO. 32
A POSSIBLE ILLEGAL SIDE EFFECT HAS BEEN DETECTED. IT OCCURS
VIA A COMMON VARIABLE WHICH HAS BEEN REFERENCED (POSSIBLY
INDIRECTLY) AT LEAST TWICE IN A STATEMENT -- IN ONE APPEAR-
ANCE IT IS USED AS STRICT INPUT AND IN THE OTHER AS STRICT
OUTPUT.

CALLING SUBPROGRAM CALLED SUBPROGRAM
---*SYSMAIN*--- ---*W201*---
VARIABLE ---*CA*--- ---*CA*---
COMMON BLOCK ---*BLK1*--- ---*BLK1*---

** 234 ** BLOCK NO. 33
A POSSIBLE ILLEGAL SIDE EFFECT HAS BEEN DETECTED. IT OCCURS
VIA A GLOBAL VARIABLE REFERENCED IN AN ARITHMETIC STATEMENT
FUNCTION. THIS VARIABLE HAS APPEARED AT LEAST TWICE IN A
STATEMENT -- IN ONE APPEARANCE IT IS USED AS STRICT INPUT AND
IN THE OTHER AS STRICT OUTPUT.

CALLING SUBPROGRAM CALLED SUBPROGRAM
---*SYSMAIN*--- ---*LASRF*---
VARIABLE ---*C*--- ---*---

** 236 ** LOCAL VARIABLE ---*XDT*--- IS NEVER ASSIGNED A VALUE.

** 236 ** LOCAL VARIABLE ---*I236*--- IS NEVER ASSIGNED A VALUE.

** 236 ** LOCAL VARIABLE ---*M*--- IS NEVER ASSIGNED A VALUE.

** 236 ** LOCAL VARIABLE ---*Y*--- IS NEVER ASSIGNED A VALUE.

** 236 ** LOCAL VARIABLE ---*LOC*--- IS NEVER ASSIGNED A VALUE.

** 236 ** LOCAL VARIABLE ---*D219*--- IS NEVER ASSIGNED A VALUE.

** 236 ** LOCAL VARIABLE ---*L*--- IS NEVER ASSIGNED A VALUE.

** 236 ** LOCAL VARIABLE ---*D*--- IS NEVER ASSIGNED A VALUE.

MESSAGES

MESSAGE NUMBER DESCRIPTION
----- ---------------

** 301 ** COMMON VARIABLE ---*D218*--- IN BLOCK ---*BLK1*--- OF
SUBPROGRAM ---*SYSMAIN*--- IS INITIALIZED IN BLOCK DATA.
** 301 ** COMMON VARIABLE ———*W*—— IN BLOCK ———*IBD*—— OF SUBPROGRAM ———*SUB215*—— IS INITIALIZED IN BLOCK DATA.

** 303 ** THE FOLLOWING DATA FLOW OCCURS THROUGH COMMON WHEN SUBPROGRAM ———*SUB103*—— IS CALLED.

<table>
<thead>
<tr>
<th>COMMON BLOCK</th>
<th>VARIABLE</th>
<th>INPUT CLASSIFICATION</th>
<th>OUTPUT CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>———<em>BLK1</em>——</td>
<td>———<em>CA</em>——</td>
<td>STRICT</td>
<td>NON</td>
</tr>
<tr>
<td>———<em>BLK1</em>——</td>
<td>———<em>D218</em>——</td>
<td>STRICT</td>
<td>OUTPUT</td>
</tr>
<tr>
<td>———<em>BLK1</em>——</td>
<td>———<em>Y228</em>——</td>
<td>STRICT</td>
<td>OUTPUT</td>
</tr>
</tbody>
</table>

** 303 ** THE FOLLOWING DATA FLOW OCCURS THROUGH COMMON WHEN SUBPROGRAM ———*W201*—— IS CALLED.

<table>
<thead>
<tr>
<th>COMMON BLOCK</th>
<th>VARIABLE</th>
<th>INPUT CLASSIFICATION</th>
<th>OUTPUT CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>———<em>BLK1</em>——</td>
<td>———<em>CA</em>——</td>
<td>STRICT</td>
<td>NON</td>
</tr>
</tbody>
</table>

** 304 ** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES FOR ———*SYSMAIN*——

COMMON BLOCK ———*BL1*——

AVAILABILITY = ORIGINAL

ARGUMENTS

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>———<em>CA1</em>——</td>
<td>INPUT</td>
<td>NON</td>
</tr>
<tr>
<td>2</td>
<td>———<em>BA</em>——</td>
<td>NON</td>
<td>STRICT</td>
</tr>
</tbody>
</table>

COMMON BLOCK ———*BLK1*——

AVAILABILITY = ORIGINAL

ARGUMENTS

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>———<em>CA</em>——</td>
<td>STRICT</td>
<td>STRICT</td>
</tr>
<tr>
<td>2</td>
<td>———<em>D218</em>——</td>
<td>STRICT</td>
<td>OUTPUT</td>
</tr>
<tr>
<td>3</td>
<td>———<em>Y228</em>——</td>
<td>STRICT</td>
<td>STRICT</td>
</tr>
</tbody>
</table>

——*LASRF*——

ARGUMENTS

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>———<em>X</em>——</td>
<td>STRICT</td>
<td>NON</td>
</tr>
<tr>
<td>2</td>
<td>———<em>Y</em>——</td>
<td>STRICT</td>
<td>NON</td>
</tr>
</tbody>
</table>
NOTE 1

ALTHOUGH DETECTED IN THIS SUBPROGRAM, THE CAUSE FOR THIS DIAGNOSTIC MAY HAVE OCCURRED AT A DEEPER LEVEL OF SUBPROGRAM REFERENCES AND BEEN PROPAGATED UP TO THIS ONE.

NOTE 2

IF MESSAGE 301 CONCERNING THIS VARIABLE APPEARS IN THE OUTPUT, IT MAY PROVIDE ADDITIONAL USEFUL INFORMATION ABOUT THE DATA FLOW AMONG SUBPROGRAMS.
SOURCE PROGRAM LISTING

$ IN THE CONTINUATION FIELD INDICATES THE EXPANSION
OF THE LOGICAL IF STATEMENT ON THE PREVIOUS LINE

BLOCK

SOURCE

1 BLOCK DATA
1 COMMON/IBD/B,C,D
1 COMMON /BLK1/CA,D218,Y228(6)
1 DATA B,C,D/1.,2.,3./
1 DATA D218/1./
1 END

** NO ERRORS **

** NO WARNINGS **

MESSAGES

MESSAGE NUMBER

------ DESCRIPTION

** 304 ** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES
FOR *BLOCKDATA*

COMMON BLOCK -----*IBD*---

AVAILABILITY = ORIGINAL

ARGUMENTS

POSITION NAME INPUT CLASS OUTPUT CLASS

1 -----*B*---- NON STRICT
2 -----*C*---- NON STRICT
3 -----*D*---- NON STRICT

COMMON BLOCK -----*BLK1*---

AVAILABILITY = ORIGINAL

ARGUMENTS

POSITION NAME INPUT CLASS OUTPUT CLASS

1 -----*CA*---- NON NON
2 -----*D218*--- NON STRICT
BLOCK

SOURCE

FUNCTION E101(A)
COMMON/BLK/B,C,D
COMMON/E110/M

FUNCTION CAUSES ERROR 101
FUNCTION NAME REF BEFORE BEING ASSIGNED A VALUE
ERROR 102
FUNCTION NEVER ASSIGNED A VALUE
A = 1
R = E101

ERROR 110
VAR M NOT INITIALIZED
X = M+1

WARNING 212
LOCAL VAR REFERENCED BEFORE BEING ASSIGNED ON SOME PATHS
IF(X.EQ.R)
$ K=I
WARNING 211
CONTROL VARIABLE REFERENCED ON SOME PATHS AFTER BECOMING UNDEFINED
DO 5 K=1,10
M=K*M+M
5 CONTINUE
IF(M.GT.100)
$RETURN
A=K
RETURN
END

ERRORS

ERROR NUMBER DESCRIPTION

** 101 ** FUNCTION NAME ----E101---- IS REFERENCED BEFORE BEING ASSIGNED A VALUE ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS 1 2 3
** 102 ** FUNCTION NAME ----*E101*-- IS NEVER ASSIGNED A VALUE.

---

** 211 ** CONTROL VARIABLE ----*K*---- BECOMES UNDEFINED UPON SATISFACTION OF ITS DO LOOP AT BLOCK NO. 9, YET IS REFERENCED ON SOME PATHS THEREAFTER. ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS 9 10 12

** 212 ** LOCAL VARIABLE ----*I*---- IS REFERENCED BEFORE BEING ASSIGNED A VALUE ON SOME PATHS. ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS 1 6

** 223 ** DUMMY ARGUMENT ----*A*---- IS ASSIGNED A VALUE IN BLOCK NO. 2 AND IS ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, ON SOME PATHS. ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS 2 10 12

** 229 ** LOCAL VARIABLE ----*K*---- IS ASSIGNED A VALUE IN BLOCK NO. 6 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED, ON ALL PATHS. ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS 6 7

** 236 ** LOCAL VARIABLE ----*I*---- IS NEVER ASSIGNED A VALUE.

---

** 304 ** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES FOR FUNCTION ----*E101*--
<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>---<em>E101</em>---</td>
<td>STRICT</td>
<td>NON</td>
</tr>
<tr>
<td>1</td>
<td>---<em>A</em>-----</td>
<td>NON</td>
<td>STRICT</td>
</tr>
<tr>
<td>COMMON BLOCK</td>
<td>---<em>BLK</em>---</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**AVAILABILITY = ORIGINAL**

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>---<em>B</em>-----</td>
<td>NON</td>
<td>NON</td>
</tr>
<tr>
<td>2</td>
<td>---<em>C</em>-----</td>
<td>NON</td>
<td>NON</td>
</tr>
<tr>
<td>3</td>
<td>---<em>D</em>-----</td>
<td>NON</td>
<td>NON</td>
</tr>
<tr>
<td>COMMON BLOCK</td>
<td>---<em>E110</em>---</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**AVAILABILITY = ORIGINAL**

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>---<em>M</em>-----</td>
<td>STRICT</td>
<td>STRICT</td>
</tr>
</tbody>
</table>
$ IN THE CONTINUATION FIELD INDICATES THE EXPANSION
OF THE LOGICAL IF STATEMENT ON THE PREVIOUS LINE

BLOCK

SOURCE

1 SUBROUTINE SUB103(I,X,Y)
1 COMMON/BLK/B,C,D
1 COMMON/BLK1/J,Y(7)
2 I=4
3 X=6.
4 IF(Y.GT.X)
5 $Y=X
6 B=B+1
0 C CALL IS TO HELP GENERATE MESSAGE 302
0 C CALL SUB302
0 C HELPS GENERATE WARNING 210 IN MAIN PROGRAM
0 C IF(B.EQ.1.)
9 $ C=D
0 C WARNING 224
0 C COMMON REDEFINED ON ALL PATHS BEFORE BEING REFERENCED
0 C
10 B=1.
11 B=2.
0 C WARNING 225
0 C SAME AS 224 BUT ON SOME PATHS
12 D = B
13 IF(X.EQ.C)
14 $ D=B+1
15 RETURN
1 END

ERRORS
---------

ERROR NUMBER  DESCRIPTION
---------  ------------

** 107 ** THE NAME -----*Y*----- IS USED TO REPRESENT BOTH A DUMMY
ARGUMENT AND A COMMON VARIABLE IN THIS SUBPROGRAM.
** WARNINGS **

** 214 ** CORRESPONDING COMMON VARIABLES IN COMMON BLOCK ----*BLK1*--- HAVE DIFFERENT DATA TYPES.

CALLING SUBPROGRAM CALLED SUBPROGRAM
---*SUB103*--- ---*SUB302*---

VARIABLE
-----*Y*-----

DATA TYPE
REAL

VARIABLE
-----*K*-----

DATA TYPE
INTEGER

** 224 ** COMMON VARIABLE ----*B*----- IS ASSIGNED A VALUE IN BLOCK NO. 10 AND IS ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS 10 11

** 225 ** COMMON VARIABLE ----*D*----- IS ASSIGNED A VALUE IN BLOCK NO. 12 AND IS ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, ON SOME PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS 12 13 14

** 237 ** CORRESPONDING COMMON VARIABLES IN COMMON BLOCK ----*BLK1*--- HAVE DIFFERENT DATA TYPES IN SUBPROGRAM --*SUB103*-- AND BLOCK DATA.

SUBPROGRAM BLOCK DATA
---*SUB103*---

VARIABLE
-----*J*-----

DATA TYPE
INTEGER

VARIABLE
-----*CA*-----

DATA TYPE
REAL

** MESSAGES **

** 303 ** THE FOLLOWING DATA FLOW OCCURS THROUGH COMMON WHEN SUBPROGRAM ---*SUB302*-- IS CALLED.

<table>
<thead>
<tr>
<th>COMMON BLOCK</th>
<th>VARIABLE</th>
<th>INPUT CLASSIFICATION</th>
<th>OUTPUT CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>----<em>BLK1</em>---</td>
<td>------<em>Y</em>------</td>
<td>STRICT</td>
<td>NON</td>
</tr>
<tr>
<td>----<em>BLK1</em>---</td>
<td>------<em>J</em>------</td>
<td>STRICT</td>
<td>NON</td>
</tr>
</tbody>
</table>
** 304 ** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES
FOR SUBROUTINE ---*SUB103*---

**ARGUMENTS**

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-----<em>I</em>-----</td>
<td>NON</td>
<td>STRICT</td>
</tr>
<tr>
<td>2</td>
<td>-----<em>X</em>-----</td>
<td>NON</td>
<td>STRICT</td>
</tr>
<tr>
<td>3</td>
<td>-----<em>Y</em>-----</td>
<td>STRICT</td>
<td>OUTPUT</td>
</tr>
</tbody>
</table>

**COMMON BLOCK**

---*BLK*---

**AVAILABILITY** = ORIGINAL

**ARGUMENTS**

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-----<em>B</em>-----</td>
<td>STRICT</td>
<td>STRICT</td>
</tr>
<tr>
<td>2</td>
<td>-----<em>C</em>-----</td>
<td>INPUT</td>
<td>OUTPUT</td>
</tr>
<tr>
<td>3</td>
<td>-----<em>D</em>-----</td>
<td>INPUT</td>
<td>STRICT</td>
</tr>
</tbody>
</table>

**COMMON BLOCK**

---*BLK1*---

**AVAILABILITY** = ORIGINAL

**ARGUMENTS**

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-----<em>J</em>-----</td>
<td>STRICT</td>
<td>NON</td>
</tr>
<tr>
<td>2</td>
<td>-----<em>Y</em>-----</td>
<td>STRICT</td>
<td>OUTPUT</td>
</tr>
</tbody>
</table>
SOURCE PROGRAM LISTING

$ IN THE CONTINUATION FIELD INDICATES THE EXPANSION
OF THE LOGICAL IF STATEMENT ON THE PREVIOUS LINE

BLOCK

SOURCE

1    SUBROUTINE SUB302
0    C    WARNING 214
0    C    COMMON VARIABLES HAVE DIFFERENT DATA TYPES IN CALLING AND CALLED
0    C    WARNING 237
0    C    COMMON VARIABLES HAVE DIFFERENT DATA TYPES HERE AND IN BLOCK DATA
1    C    COMMON/BLK1/K(8)
0    C    SUBROUTINE WILL HELP GENERATE MESSAGE 302
0    C
2    CALL SUB106(X,Y)
3    I=1+K(1)
0    C    ERROR 111
0    C    CONTROL VAR IS REFERENCED OUTSIDE OF LOOP
0    C
4    DO 100 J = 1 , 5
5    X = 1
6    100 CONTINUE
7    I = J
8    RETURN
1    END

ERRORS

ERROR
NUMBER  DESCRIPTION
-------  ------------
** 111 ** CONTROL VARIABLE ----*J*---- BECOMES UNDEFINED UPON SATISFACTION
OF ITS DO LOOP AT BLOCK NO.  6, YET IS REFERENCED ON ALL
PATHS THEREAFTER.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
6    7

WARNINGS

WARNING
** 229 ** LOCAL VARIABLE ----*X*---- IS ASSIGNED A VALUE IN BLOCK NO. 5 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED, ON ALL PATHS. ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS 5 - 8

** 229 ** LOCAL VARIABLE ----*I*---- IS ASSIGNED A VALUE IN BLOCK NO. 3 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED, ON ALL PATHS. ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS 3 - 7

** 237 ** CORRESPONDING COMMON VARIABLES IN COMMON BLOCK ----*BLK1*--- HAVE DIFFERENT DATA TYPES IN SUBPROGRAM --*SUB302*-- AND BLOCK DATA.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DATA TYPE</th>
<th>SUBPROGRAM</th>
<th>BLOCK DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>----<em>K</em>----</td>
<td>INTEGER</td>
<td>--<em>SUB302</em>--</td>
<td>----<em>Y228</em>--</td>
</tr>
</tbody>
</table>

** 237 ** CORRESPONDING COMMON VARIABLES IN COMMON BLOCK ----*BLK1*--- HAVE DIFFERENT DATA TYPES IN SUBPROGRAM --*SUB302*-- AND BLOCK DATA.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DATA TYPE</th>
<th>SUBPROGRAM</th>
<th>BLOCK DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>----<em>K</em>----</td>
<td>INTEGER</td>
<td>--<em>SUB302</em>--</td>
<td>----<em>CA</em>---</td>
</tr>
</tbody>
</table>

** 237 ** CORRESPONDING COMMON VARIABLES IN COMMON BLOCK ----*BLK1*--- HAVE DIFFERENT DATA TYPES IN SUBPROGRAM --*SUB302*-- AND BLOCK DATA.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DATA TYPE</th>
<th>SUBPROGRAM</th>
<th>BLOCK DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>----<em>K</em>----</td>
<td>INTEGER</td>
<td>--<em>SUB302</em>--</td>
<td>----<em>D218</em>--</td>
</tr>
</tbody>
</table>

** M E S S A G E S **

** 302 ** THE FOLLOWING COMMON BLOCKS, ALTHOUGH NOT EXPLICITLY IN SUBPROGRAM --*SUB302*--, ARE AVAILABLE TO IT.
COMMON BLOCK ---*BLK*---

** 304 ** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES
FOR SUBROUTINE ---*SUB302*---
THERE ARE NO PARAMETERS OR COMMON BLOCKS

COMMON BLOCK ---*BLK1*---

AVAILABILITY = ORIGINAL

ARGUMENTS
POSITION  NAME  INPUT CLASS  OUTPUT CLASS
  1  --------  STRICT  NON

COMMON BLOCK ---*BLK*---

AVAILABILITY = ALWAYS

VARIABLE NAMES TAKEN FROM SUBPROGRAM ---*SUB106*---

ARGUMENTS
POSITION  NAME  INPUT CLASS  OUTPUT CLASS
  1  --------  NON  NON
  2  --------  NON  NON
  3  --------  NON  NON
$ IN THE CONTINUATION FIELD INDICATES THE EXPANSION
OF THE LOGICAL IF STATEMENT ON THE PREVIOUS LINE

BLOCK

1 SUBROUTINE SUB105(X,I)
0 C ERROR 105 GENERATED BY THIS ROUTINE IN MAIN PROGRAM
0 C ALSO AIDS IN GENERATION OF MESSAGE 302
2 Y = X+4
3 CALL SUB106(X,Y)
4 RETURN
1 END

**NO ERRORS**

WARNINGS

WARNING NUMBER DESCRIPTION
------- -----------

**207** DUMMY ARGUMENT ----*I*---- IS NEVER USED.

**229** LOCAL VARIABLE ----*Y*---- IS ASSIGNED A VALUE IN BLOCK
NO. 2 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE
BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED,
ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
2 3

MESSAGES

MESSAGE NUMBER DESCRIPTION
------- -----------

**304** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES
FOR SUBROUTINE --*SUB105*--
<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>----<em>x</em>----</td>
<td>STRICT</td>
<td>STRICT</td>
</tr>
<tr>
<td>2</td>
<td>----<em>i</em>----</td>
<td>NON</td>
<td>NON</td>
</tr>
</tbody>
</table>
$ IN THE CONTINUATION FIELD INDICATES THE EXPANSION
OF THE LOGICAL IF STATEMENT ON THE PREVIOUS LINE

BLOCK

SOURCE

1 SUBROUTINE SUB106(X,Z)
0 C
0 C SUBROUTINE WILL GENERATE ERROR 106 IN MAIN PROGRAM
0 C
2 X=6.
0 C
0 C AID WITH MESSAGE 302
3 Y=E101(Z)
0 C
0 C WILL GENERATE WARNING 203 IN MAIN PROGRAM
0 C
4 IF(Y.LT.X)
5 $Z=3
6 RETURN
1 END

ERRORS
---

ERROR NUMBER DESCRIPTION
-------

** 110 ** COMMON VARIABLE ----*M*---- IS REFERENCED ON ALL PATHS IN
CALLED SUBPROGRAM ----*E101*----, YET IS NOT INITIALIZED. IT
DOES NOT APPEAR IN BLOCK DATA, AND ITS COMMON BLOCK ----*E110*---
IS NOT AVAILABLE TO CALLING SUBPROGRAM --*SUB106*-. (SEE
NOTE 1)

WARNINGS
---

WARNING NUMBER DESCRIPTION
------

** 216 ** COMMON VARIABLE ----*M*---- IS ASSIGNED A VALUE ON ALL PATHS
IN CALLED SUBPROGRAM ----*E101*----, YET ITS COMMON BLOCK
----*E110*-- IS NOT AVAILABLE TO CALLING SUBPROGRAM --*SUB106*--.
**MESSAGES**

<table>
<thead>
<tr>
<th>MESSAGE NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>302</strong></td>
<td>THE FOLLOWING COMMON BLOCKS, ALTHOUGH NOT EXPLICITLY IN SUBPROGRAM --<em>SUB106</em>--, ARE AVAILABLE TO IT.</td>
</tr>
</tbody>
</table>

**COMMON BLOCK**

**304** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES FOR SUBROUTINE --*SUB106*--

<table>
<thead>
<tr>
<th>ARGUMENTS</th>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-----<em>X</em>-----</td>
<td>NON</td>
<td>STRICT</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>-----<em>Z</em>-----</td>
<td>NON</td>
<td>STRICT</td>
<td></td>
</tr>
</tbody>
</table>

**COMMON BLOCK**

**304** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES FOR SUBROUTINE --*SUB106*--

<table>
<thead>
<tr>
<th>ARGUMENTS</th>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-----<em>E</em>-----</td>
<td>NON</td>
<td>NON</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>-----<em>C</em>-----</td>
<td>NON</td>
<td>NON</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>-----<em>D</em>-----</td>
<td>NON</td>
<td>NON</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES**

**NOTE 1**

ALTHOUGH DETECTED IN THIS SUBPROGRAM, THE CAUSE FOR THIS DIAGNOSTIC MAY HAVE OCCURRED AT A DEEPER LEVEL OF SUBPROGRAM REFERENCES AND BEEN PROPAGATED UP TO THIS ONE.

**NOTE 2**

IF MESSAGE 301 CONCERNING THIS VARIABLE APPEARS IN THE OUTPUT, IT MAY PROVIDE ADDITIONAL USEFUL INFORMATION ABOUT THE DATA FLOW AMONG SUBPROGRAMS.
$ IN THE CONTINUATION FIELD INDICATES THE EXPANSION OF THE LOGICAL IF STATEMENT ON THE PREVIOUS LINE

BLOCK

SOURCE

1 SUBROUTINE SUB208(B,X)
1 COMMON/BLK1/CA
1 COMMON/BLK/B,C,D
0 C
0 C ERROR 107
0 C COMMON VARIABLE IS ALSO USED AS A DUMMY ARGUMENT
0 C
2 IF(Y.EQ.D)
3 $ GO TO 100
4 X=B
5 100 RETURN
1 END

ERRORS

ERROR NUMBER DESCRIPTION

** 107 ** THE NAME ----*B*---- IS USED TO REPRESENT BOTH A DUMMY ARGUMENT AND A COMMON VARIABLE IN THIS SUBPROGRAM.

** 112 ** LOCAL VARIABLE ----*Y*---- IS REFERENCED BEFORE BEING ASSIGNED A VALUE ON ALL PATHS. ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS 1 2

WARNINGS

WARNING NUMBER DESCRIPTION

** 236 ** LOCAL VARIABLE ----*Y*---- IS NEVER ASSIGNED A VALUE.
** 304 ** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES FOR SUBROUTINE --*SUB208*--

<table>
<thead>
<tr>
<th>ARGUMENTS</th>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMON BLOCK</td>
<td>1</td>
<td>-----<em>B</em>-----</td>
<td>INPUT</td>
<td>NON</td>
</tr>
<tr>
<td>COMMON BLOCK</td>
<td>2</td>
<td>-----<em>X</em>-----</td>
<td>NON</td>
<td>OUTPUT</td>
</tr>
<tr>
<td>AVAILABLE = ORIGINAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ARGUMENTS</th>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMON BLOCK</td>
<td>1</td>
<td>-----<em>CA</em>-----</td>
<td>NON</td>
<td>NON</td>
</tr>
<tr>
<td>AVAILABLE = ORIGINAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ARGUMENTS</th>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-----<em>B</em>-----</td>
<td>INPUT</td>
<td>NON</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>-----<em>C</em>-----</td>
<td>NON</td>
<td>NON</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>-----<em>D</em>-----</td>
<td>STRICT</td>
<td>NON</td>
<td></td>
</tr>
</tbody>
</table>
$ IN THE CONTINUATION FIELD INDICATES THE EXPANSION
OF THE LOGICAL IF STATEMENT ON THE PREVIOUS LINE

BLOCK

FUNCTION W201(X)
COMMON/BLK1/CA

C WARNING 202
FUNCTION NAME IS UNDEFINED ON SOME PATHS

Y=5

C WARNING 222
DUMMY VAR IS CHANGED BEFORE BEING REF ON ALL PATHS

X = 1
X=CA
IF(Y.GT.X)
$ GO TO 100
RETURN

C WARNING 201
FUNCTION NAME IS REF BEFORE BEING ASSIGNED ON SOME PATHS

I=W201
W201=1.
RETURN

END

** NO ERRORS **

--- --- --- --- --- --- ---

WARNINGS

--- --- --- --- --- --- ---

WARNING NUMBERDESCRIPTION
----- ----------------------

** 201 ** FUNCTION NAME ---*W201*--- IS REFERENCED BEFORE BEING
ASSIGNED A VALUE ON SOME PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 - 6 8

** 202 ** FUNCTION NAME ---*W201*--- IS NOT ASSIGNED A VALUE ON SOME PATHS.
LOCAL VARIABLE ----*I*---- IS ASSIGNED A VALUE IN BLOCK NO. 8 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED, ON ALL PATHS. ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS 8 9 10

MESSAGES

MESSAGE NUMBER

DESCRIPTION

** 304 ** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES FOR FUNCTION ----*W201*---

ARGUMENTS

POSITION | NAME | INPUT CLASS | OUTPUT CLASS
---|---|---|---
0 | ----*W201*--- | INPUT | OUTPUT
1 | ----*X*---- | NON | STRICT

COMMON BLOCK ----*BLK1*---

AVAILABILITY = ORIGINAL

ARGUMENTS

POSITION | NAME | INPUT CLASS | OUTPUT CLASS
---|---|---|---
1 | ----*CA*---- | STRICT | NON
$ IN THE CONTINUATION FIELD INDICATES THE EXPANSION
OF THE LOGICAL IF STATEMENT ON THE PREVIOUS LINE

BLOCK

SUBROUTINE SUB215(XDAT,A,B)
COMMON/IBD/W,V,T
COMMON/BLK/B1,C,D
DIMENSION XDAT(5,2)
C WARNING 223
C TYPE II ANOMALY, DUMMY ARGUMENT
C
B=XDAT(2,1)
A =2.
IF(XDAT(1,1).EQ.2.)
$ B=3.
Y=1
IF(B.EQ.3)
$ B=Y
C=B*Y
T=W*Y+B
IF(C.GT.100)
$GO TO 10
D=A*B
W=B**2
10 RETURN
END

** NO ERRORS **

--- - - - - - - -

WARNINGS

--- - - - - - - -

WARNING
NUMBER
-----

DESCRIPTION
---------

** 223 ** DUMMY ARGUMENT ----*B***** IS ASSIGNED A VALUE IN BLOCK
NO. 2 AND IS ASSIGNED A VALUE THEREAFTER BEFORE BEING
REFERENCED, ON SOME PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
2 - 5
** 304 ** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES
FOR SUBROUTINE **SUB215**

<table>
<thead>
<tr>
<th>ARGUMENTS</th>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>---------</td>
<td>XDAT</td>
<td>STRICT</td>
<td>NON</td>
</tr>
<tr>
<td>2</td>
<td>---------</td>
<td>A</td>
<td>NON</td>
<td>STRICT</td>
</tr>
<tr>
<td>3</td>
<td>---------</td>
<td>B</td>
<td>NON</td>
<td>STRICT</td>
</tr>
</tbody>
</table>

COMMON BLOCK  ---*IBD*---

AVAILABILITY = ORIGINAL

ARGUMENTS
POSITION | NAME   | INPUT CLASS | OUTPUT CLASS |
---------|--------|-------------|--------------|
1        | W      | STRICT      | OUTPUT       |
2        | V      | NON         | NON          |
3        | T      | NON         | STRICT       |

COMMON BLOCK  ---*BLK*---

AVAILABILITY = ORIGINAL

ARGUMENTS
POSITION | NAME   | INPUT CLASS | OUTPUT CLASS |
---------|--------|-------------|--------------|
1        | B1     | NON         | NON          |
2        | C      | NON         | STRICT       |
3        | D      | NON         | OUTPUT       |
$ IN THE CONTINUATION FIELD INDICATES THE EXPANSION
OF THE LOGICAL IF STATEMENT ON THE PREVIOUS LINE

BLOCK

SOURCE

1
1 SUBROUTINE SUB(A,B)
1 DATA X,Y/1.2/
0 C WARNING 220 AND 221
0 C LOCAL VARIABLE INITIALIZED IN DATA STATEMENT IS ASSIGNED
0 C A VALUE ON ALL(SOME) PATHS
2 Y=A
3 IF(A.LT.0)
4 $X=B
5 IF(X.LT.Y)
6 $ RETURN
7 B=1
8 RETURN
1 END

** NO ERRORS **

- - - - - - - - -

WARNINGS

- - - - - - - -

WARNING NUMBER DESCRIPTION
------- -------------

** 220 ** LOCAL VARIABLE ----*Y*----, INITIALIZED IN A DATA STATEMENT,
IS ASSIGNED A VALUE ON ALL PATHS. UNDEFINITION WILL OCCUR
UPON EXIT FROM THIS SUBPROGRAM.

** 221 ** LOCAL VARIABLE ----*X*----, INITIALIZED IN A DATA STATEMENT,
IS ASSIGNED A VALUE ON SOME PATHS. UNDEFINITION MAY OCCUR
UPON EXIT FROM THIS SUBPROGRAM.

** 229 ** LOCAL VARIABLE ----*Y*---- IS ASSIGNED A VALUE IN BLOCK
NO. 1 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE
BEING REFERENCED, OR IS NOT SUBSEQUENTLY REFERENCED,
ON ALL PATHS.
ONE SUCH PATH, INDICATED BY BLOCK NUMBERS, IS
1 2

** 230 ** LOCAL VARIABLE ----*X*---- IS ASSIGNED A VALUE IN BLOCK
NO. 1 AND IS EITHER ASSIGNED A VALUE THEREAFTER BEFORE
MESSAGES

<table>
<thead>
<tr>
<th>MESSAGE NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>

** 304 ** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES
FOR SUBROUTINE ---*SUB*---

<table>
<thead>
<tr>
<th>ARGUMENTS POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>----<em>A</em>----</td>
<td>STRICT</td>
<td>NON</td>
</tr>
<tr>
<td>2</td>
<td>----<em>B</em>----</td>
<td>INPUT</td>
<td>OUTPUT</td>
</tr>
</tbody>
</table>
$ IN THE CONTINUATION FIELD INDICATES THE EXPANSION
OF THE LOGICAL IF STATEMENT ON THE PREVIOUS LINE

BLOCK

SOURCE

FUNCTION FUN(X)

0 C

0 C FUNCTION IS NEVER REFERENCED

0 C

2 RETURN

1 END

ERRORS

--------

ERROR NUMBER DESCRIPTION

--------

** 102 ** FUNCTION NAME ---*FUN*--- IS NEVER ASSIGNED A VALUE.

WARNINGS

--------

WARNING NUMBER DESCRIPTION

--------

** 207 ** DUMMY ARGUMENT ---*X*--- IS NEVER USED.

** 235 ** SUBPROGRAM ---*FUN*--- IS NEVER CALLED.

MESSAGES

--------

MESSAGE NUMBER DESCRIPTION

--------
<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-----<em>FUN</em>-----</td>
<td>NON</td>
<td>NON</td>
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<tr>
<td>1</td>
<td>-----<em>X</em>-----</td>
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<td>NON</td>
</tr>
</tbody>
</table>
** 304 ** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES
FOR FUNCTION   ---*FSIM*---

<table>
<thead>
<tr>
<th>ARGUMENTS POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>---<em>FSIM</em>---</td>
<td>NON</td>
<td>STRICT</td>
</tr>
<tr>
<td>1</td>
<td>DUMMY PARM.</td>
<td>STRICT</td>
<td>NON</td>
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</tbody>
</table>
** 304 ** I/O CLASSIFICATION OF ARGUMENTS AND COMMON VARIABLES
FOR SUBROUTINE --*SUBSIM*--

<table>
<thead>
<tr>
<th>ARGUMENTS POSITION</th>
<th>NAME</th>
<th>INPUT CLASS</th>
<th>OUTPUT CLASS</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>DUMMY PARM.</td>
<td>STRICT</td>
<td>NON</td>
</tr>
<tr>
<td>2</td>
<td>DUMMY PARM.</td>
<td>STRICT</td>
<td>NON</td>
</tr>
<tr>
<td>3</td>
<td>DUMMY PARM.</td>
<td>STRICT</td>
<td>NON</td>
</tr>
<tr>
<td>4</td>
<td>DUMMY PARM.</td>
<td>STRICT</td>
<td>NON</td>
</tr>
</tbody>
</table>

STOP
/cost
JOB COST - 76/11/23, 15.24.13, $19.10
COST.