

Subject: Disassociated or deallocated actual argument associated with nonpointer nonallocatable optional dummy argument is considered not to be present
 From: Van Snyder
 Reference: 03-258r1, section 2.4.3.1, 04-178

1 **Number**

2 TBD

3 **Title**

4 Disassociated or deallocated actual argument associated with nonpointer nonallocatable optional dummy
 5 argument is considered not to be present.

6 **Submitted By**

7 J3

8 **Status**

9 For consideration.

10 **Basic Functionality**

11 A disassociated or deallocated actual argument associated with a nonpointer nonallocatable optional
 12 dummy argument is considered not to be present.

13 **Rationale**

14 I have a procedure that has numerous pointers that are associated, or not, depending on input parame-
 15 ters. These are in turn passed to some subroutines that do (or do not do) some computations depending
 16 on whether the dummy arguments are associated. This, of course, requires the dummy arguments to
 17 be pointers, which degrades the generality of the procedure, and may have undesirable implications for
 18 optimization.

19 It would be better if I could use optional nonpointer dummy arguments to decide whether to do these
 20 computations. In order to achieve this effect by using n optional dummy arguments I need an IF ...
 21 ELSE IF ... END IF construct with 2^n branches.

22 **Estimated Impact**

23 Nearly trivial — a minor change in definition of “present”. Estimated at meeting 169 to be 4 on the
 24 JKR scale.

25 **Detailed Specification**

26 Allow to associate a deallocated allocatable actual argument, or a disassociated pointer actual argument,
 27 with an optional nonpointer nonallocatable dummy argument, in which case the dummy argument is
 28 considered to be absent. In Fortran 2003, this is an error.

29 **Suggested edits**

30 The following edits are intended to illustrate the magnitude of the proposal. It is likely that they are
 31 complete, or nearly so.

32 [Replace first “the” by “a nonoptional”.]

269:20

1	[Insert a new sentence at the end of the paragraph:]	269:22
2	If an optional nonpointer dummy argument is associated with a pointer actual argument, the pointer	
3	association status of the actual argument shall not be undefined.	
4	[Replace first “the” by “a nonoptional” and insert “corresponding” after second “the”.]	269:23
5	[Replace “A dummy” by “An optional dummy” and “a dummy” by “an optional dummy”.]	272:26
6	[Delete “or”.]	272:28
7	[Replace period by “, or”.]	272:29
8	(3) does not have the ALLOCATABLE or POINTER attribute and is associated with an actual	272:29+
9	argument that	
10	(a) has the ALLOCATABLE attribute and is not allocated, or	
11	(b) has the POINTER attribute and is not associated with a target; the association status	
12	of the associated actual argument shall not be undefined.	

13 History