Subject: Oversights concerning J3-016, and technical Notes etc. in 06-014r0 concerning J3-016
From: Van Snyder

1 Need something in the intro

(xx) A disassociated or deallocated actual argument can correspond to an optional nonpointer nonallocatable dummy argument. xiii

2 Semantics deleted by 06-149

06-149 deleted semantics for asssociation of nonoptional dummy arguments. In studying how to restore the semantics it was realized that the first paragraph of 12.4.1 deals with correspondence between actual and dummy arguments, but incorrectly uses the term "associated". The definition of argument association is scattered and too late for some purposes.

[Editor: Introduce a new subsubsubclause number and title:] 268:1+

12.4.1.0$\frac{1}{2}$ Argument correspondence

[Editor: Replace "is associated with" by "corresponds to" twice.] 268:5, 7-8

[Editor: Replace "is associated with" by "corresponds to" twice.] 268:9, 10

Editor: Replace "be associated with" by "correspond to" thrice.] 268:13-15

[Editor: Replace "association" by "correspondence".] 268:16

[Editor: Replace "is associated" by "corresponds".] 268:18

[Editor: Introduce a new subsubsubclause number and title, then replace the paragraph introduced at [268:15+] by 05-210r2, and the edit to it introduced by 06-149, by the following; this puts it after subclause 12.4.1.1 instead of before Note 12.20:] 268:19+

12.4.1.1$\frac{1}{2}$ Argument association

Except in references to intrinsic inquiry functions, if a nonoptional nonpointer dummy argument corresponds to a pointer actual argument, the actual argument shall be pointer associated with a target and the dummy argument becomes argument associated with that target. If an optional nonpointer dummy argument corresponds to a pointer actual argument that is pointer associated with a target the dummy argument becomes argument associated with that target. A present nonpointer dummy argument that corresponds to a nonpointer actual argument becomes argument associated with that actual argument.

A present pointer dummy argument that corresponds to a pointer actual argument becomes argument associated with that actual argument. A present pointer dummy argument that does not correspond to a pointer actual argument is not argument associated.

[The paragraph at [271:15-19] confuses "associated" with "corresponding." The revised edit for [268:15+] (now at [268:19+]) defines "associated" only for present dummy arguments, and clarifies how pointer association of actual arguments interacts with dummy arguments. Furthermore pointer association and argument association are intentionally parallel. So things can be simplified. Editor: replace "dummy ... those" by "or dummy procedure, or a specific intrinsic procedure".] 271:16-18

[Editor: Replace the subclause title:] 272:25

12.4.1.6 Argument presence and restrictions on arguments not present

[Argument presence must be determined by correspondence, not association. Editor: Replace the first list, and the first two sentences of the second paragraph ("Otherwise ... shall be present") of 12.4.1.6 by the following. Delete the edit for [272:28-29] introduced by 06-149 from 014.] 272:28-30

(1) does not correspond to an actual argument,
(2) corresponds to an actual argument that is not present, or

(3) does not have the ALLOCATABLE or POINTER attribute, and corresponds to an actual argument that

(a) has the ALLOCATABLE attribute and is not allocated, or

(b) has the POINTER attribute and is disassociated.

Otherwise, it is present. A nonoptional dummy argument shall be present. If an optional nonpointer dummy argument corresponds to a pointer actual argument, the pointer association status of the actual argument shall not be undefined.

3 Editorial suggestion — While we're at it...

[Editor: Replace "associated with" by "corresponding to" in the subclause heading and replace "associated" by "corresponding" in the subclause body.] 272:2-3

4 Argument association for dummies

Does this table help 12.4.4.1$\frac{1}{2}$?

Actual argument	Nonoptional Nonpointer Dummy argument	Optional Nonpointer Dummy argument	Pointer Dummy argument
Associated Pointer	Argument associated with target of actual argument		Argument associated with actual argument
Disassociated Pointer	Prohibited	Not present	Argument associated with actual argument
Nonpointer	Argument associated with actual argument		Pointer associated with actual argument if INTENT(IN) else prohibited