Subject: Sections or elements of absent arguments are absent
From: Van Snyder

Number

TBD

Title

Sections or elements of absent arguments are absent.

Submitted By

J3

Status

For consideration.

Basic Functionality

Define sections and elements of absent dummy argument arrays to be absent.

Rationale

If an optional dummy argument is an array, and a section of it is needed as an actual argument to be associated with an optional dummy argument, one needs to test whether the argument is present, and arrange that if not, a section of it does not appear as an actual argument. This isn't a tremendous problem if the referenced procedure has one argument of this form, but with n arguments, one needs a 2^n-way IF construct.

The provision of the proposal in 04-192 to compute whether an argument is present, during program execution instead of as a consequence of the cast-in-concrete syntactic appearance of a procedure reference, would render the need for this proposal less urgent, *viz.*

```
call SUB ( X, Y, present(A) ? A(:,I) )
```

Estimated Impact

Minor, both for standard and implementors.

Detailed Specification

Define sections and elements of absent dummy argument arrays to be absent. It may be necessary to make an exeception to the subscripts-are-within-bounds rule, but it may also be possible to finesse it otherwise.

This isn't any more of a problem for expressions than the present possibility to use an absent argument in an expression — which is prohibited. An absent object that arises from a section of an absent argument array would be nothing different.

If descriptors cannot be arranged so that the computations ordinarily done to compute descriptors for sections of optional dummy arrays produce descriptors for absent dummy arrays if they are applied to absent dummy arrays, unacceptable performance problems may result.

History