Subject: Optional arguments for subprograms that define operations or assignment
From: Van Snyder
Reference: 03-258r1, sections 2.3.3

1 Number

TBD

2 Title

Optional arguments for subprograms that define operations or assignment.

3 Submitted By

J3

4 Status

For consideration.

5 Basic Functionality

Allow optional arguments for subprograms that define operations or assignment.

6 Rationale

One sometimes has procedures that have optional arguments that one would like to use to define assignment or operations. These cannot be used because of restrictions on the number of arguments such procedures are required to have. One could wrap these with additional procedures that have the required number of arguments, but this increases code bulk. Studies have shown that the most important factor contributing to development and maintenance expense is code bulk.

7 Estimated Impact

Minor.

8 Detailed Specification

Allow procedures that define assignment or operations to have optional arguments. Require a procedure that defines assignment to have at least two arguments, with any after the first two required to be optional — and the first two could be optional, too. Require a procedure that defines an operation to have at least one argument, and if it has more than two, those after the second one are required to be optional — and the first two could be optional, too. If a procedure for which all arguments after the first one are optional defines an operation, the operator can be used as either a binary operator or as an unary operator.

The generic resolution rules already handle optional arguments.

9 History