

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

## 1 **1 Number**

2 TBD

## 3 **2 Title**

4 Optional arguments for subprograms that define operations or assignment.

## 5 **3 Submitted By**

6 J3

## 7 **4 Status**

8 For consideration.

## 9 **5 Basic Functionality**

10 Allow optional arguments for subprograms that define operations or assignment.

## 11 **6 Rationale**

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

## 17 **7 Estimated Impact**

18 Minor.

## 19 **8 Detailed Specification**

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

27 The generic resolution rules already handle optional arguments.

## 28 **9 History**