

Subject: One more try at a READONLY attribute
From: Van Snyder
References: 00-169 00-192, 00-193, 00-301

1 Introduction

The people I work with, who pay the bill for me to participate in J3 meetings, have asked me again about a READONLY attribute for module variables. I mentioned that it had foundered on the name: “Hmmm, READONLY... does that mean it can only appear in a read statement?” Several other names were suggested for the attribute: LIMITED, SEMIPRIVATE (with and without an underscore) and PROTECTED.

I’ll use LIMITED here, because it’s the shortest one. If the proposed specification is accepted, we can have a straw vote on the spelling.

I propose here that we add an attribute, however spelled, that a named variable cannot be changed, and the pointer association status of a pointer cannot be changed, in scoping units that access the variable by use association. By stretching our imaginations a little bit, we can put it under the aegis of work plan item R4, which I thought had been changed to be something like “Improving modules so that it’s easier to use modules to implement new abstract data types efficiently,” but the work plan (00-010) still says “Interval Arithmetic.”

2 Specification

Add an attribute and statement that specifies that a named variable cannot be changed, and the pointer association status of a pointer cannot be changed, in scoping units that access the variable by use association.

3 Syntax

Except for spelling, the syntax is obvious: An attribute and statement, spelled with the same keyword. **Straw vote:** (1) LIMITED, (2) PROTECTED, (3) SEMIPRIVATE or SEMIPRIVATE, (4) other (and another obvious straw vote if (3) wins).

4 Edits

Edits refer to 00-007r1. Page and line numbers are displayed in the margin. Absent other instructions, a page and line number or line number range implies all of the indicated text is to be replaced by immediately following text, while a page and line number followed by + (-) indicates that immediately following text is to be inserted after (before) the indicated line. Remarks for the editor are noted in the margin, or appear between [and] in the text.

<i>or limited-stmt</i>	10:44+
<i>or LIMITED</i>	39:42+
Constraint: If PRIVATE appears, LIMITED shall not appear.	39:44+

