Subject: Initial values on every invocation
From: Van Snyder
Reference: 03-258r1, section 2.11

Number

TBD

Title

Initial values on every invocation.

Submitted By

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Status

For consideration.

Basic Functionality

Provide a specification that initialization for a variable declared in a subprogram applies on every invocation of the procedure.

Rationale

Users who don't read the standard (or their textbooks) carefully are sometimes confused by initialization for variables. They don't realize that it happens exactly once, and not on every invocation. Leaving aside the confusion, it is sometimes desirable for initialization to happen on every invocation, and not automatically to imply the SAVE attribute.

Estimated Impact

Minor.

Detailed Specification

Provide an attribute for a variable declared in a subprogram, which can only be specified if it has initialization, that specifies that the initialization is performed every time the procedure is invoked. It should also be applicable to automatic variables and to pointers. If the variable doesn't have the POINTER attribute, allow the initial value to be a specification expression.

This attribute, and initialization in the presence of this attribute, ought not to imply the SAVE attribute.

History