a December 1999

J3/99-247r3

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Subject: Issue 20, and issues related to pointer assignment and procedure pointers

From: Van Snyder

## 1 Discussion

In addition to the topic of issue 20, most of the contents of the paragraphs at 155:39-2 should be constraints.

## 2 Edits

Edits refer to 99-007r3. 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 the indicated line. Remarks for the editor are noted in the margin, or appear between [ and ] in the text.

The target of a pointer assignment operation is a data object or a procedure. It may be specified 155:3+directly, by a pointer, or be the result of a function reference that returns a pointer.

[Editor: Remove	"pointer-object and"	155:14
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Constraint: The ranks of the *pointer-object* and the *target* shall be the same.

155:18-19

Constraint: The corresponding kind type parameters of the *pointer-object* and the *target* shall be equal.

[Editor:	Delete the J3 note.	155:20-33
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[Editor: Replace from the beginning of the paragraph through  $(\bullet)$  by the following constraints:]

Constraint: If the *pointer-object* is a procedure pointer that has an explicit interface, the characteristics listed in 12.2 shall be the same for the *pointer-object* and the *target*, except that a *target* that is pure may be assigned to a *pointer-object* that is not pure and a *target* that is an elemental intrinsic procedure may be assigned to a *pointer-object* that is not elemental.

Constraint: If the *pointer-object* is a procedure pointer, the *target* shall be polymorphic if and only if the *pointer-object* is polymorphic.

Constraint: If the *pointer-object* is a procedure pointer, the *target* shall be the specific name of an external, module, or dummy procedure, a specific intrinsic procedure listed in 13.15 and not marked with a bullet  $(\bullet)$ , a procedure pointer, a reference to a function that returns a procedure pointer, or a reference to the NULL intrinsic function.

[Editor: Start a new paragraph with the sentence that remains after the above redaction, insert "target is a" before "specific" and insert "that" before "is also".]

[Editor: Delete – it's replaced by the first constraint above at 155:39-42.] 155:45-2