Subject: Comments on interface bodies and external procedures
From: Van Snyder

1 Introduction

It is explicitly stated in the second paragraph of C.9.3 that the standard allows that a name declared by an interface body need not imply that an external procedure of the same name is part of the program. Many processors behave in the way therein described. The second normative paragraph of 12.3.2.1 (after the syntax rules) appears directly to contradict this intent.

I like Richard Maine's idea, articulated in pre-meeting e-mail message j3.2002-53, that an interface body is a local entity. If there is an external procedure, *proc-target*, or actual argument of the same name, the interface body specifies its interface. This has the attraction that all interface bodies become local names, as opposed to some being global and some being local.

2 Edits

Edits refer to 02-007. 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 associated text, while a page and line number followed by + (-) indicates that associated text is to be inserted after (before) the indicated line. Remarks are noted in the margin, or appear between [and] in the text.

[Editor: "as ... (12.3.2.1)" ⇒ "both as an actual argument name and an interface body name (12.3.2.1) in the same scoping unit".] 76:31

[Editor: Delete "for an existing external procedure or a dummy procedure" – the "existing external procedure" part appears to contradict the second paragraph of C.9.3.] 245:16-17

[Editor: "If ... such" ⇒ "The name of an interface body`\index{name!interface body}` is the *function-name* in the *function-stmt* or the *subroutine-name* in the *subroutine-stmt* that introduces the interface body. If the name of".] 245:17-18

[Editor: "; otherwise ... interface" ⇒ ". If an interface body name is accessible in a scoping unit and is the same as a name used as an actual argument, the *procedure-name* in a *pointer-assignment-stmt*, or the *procedure-name* in a *function-reference* or a *call-stmt*, the referenced name has the explicit specific interface specified by the named interface body".] 245:20-21

[Editor: "abstract interfaces" ⇒ "interface bodies".] 382:6

[Editor: Insert "or interface body name" before "(12.3.2.1)".] 382:12

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(12) The name of an interface body; 387:32

3 Proposal to go a little farther

I don't think the note proposed here contradicts the standard, but including it ought to be considered separately from the edits in section 2.

245:21+

NOTE 12.3$\frac{1}{2}$

This standard does not require that a procedure specified by an interface body or an EXTERNAL statement shall be part of the program unless it is referenced. Some processors may support a facility, such as dynamic linking, that allows the program to conform to this standard even if a referenced procedure is not part of the program, so long as no reference to it is executed, it is not an actual argument in any procedure reference that is executed, and it is not a *proc-target* in any pointer assignment statement that is executed.