16 January 2002 J3/02-107

Subject: Comments on interface bodies and external procedures

From: Van Snyder

1 1 Introduction

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

7 2 Edits

- 8 Edits refer to 02-007. Page and line numbers are displayed in the margin. Absent other
- 9 instructions, a page and line number or line number range implies all of the indicated text is to
- 10 be replaced by associated text, while a page and line number followed by + (-) indicates that
- 11 associated text is to be inserted after (before) the indicated line. Remarks are noted in the
- 12 margin, or appear between [and] in the text.
- 13 [Editor: Delete "for an existing external procedure or a dummy procedure" the "existing 245:16-17
- 14 external procedure" part appears to contradict the second paragraph of C.9.3.]
- 15 [Editor: "; otherwise," \Rightarrow ". Otherwise if the named entity is referenced directly as a pro- 245:20
- 16 cedure (12.4), referenced indirectly by way of a generic identifier (12.4.4.1) or by derived-type
- input/output (9.5.3.7), used as an actual argument (12.4.1), or used as a proc-target in a pointer
- assignment statement (7.5.2),".]
- 19 [Editor: Delete second "procedure" (compare to [245:20]). Then, at the end of the paragraph, 245:21
- 20 add "Otherwise, an external procedure of that name need not be a part of the program."
- 21 (Explicitly confirm the second paragraph of C.9.3.)]

22 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.

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

245:21+

This standard does not require that a procedure specified by an interface body or an EX-TERNAL 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.

16 January 2002 Page 1 of 1