24 August 2001 J3/01-264r2

To: /B subgroup

Subject: Comments on section 8

From: Van Snyder

1 Edits

Edits refer to 01-007r2. 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 are noted in the margin, or appear between [and] in the text.

[Editor: Embolden "statement label" (and index?).]

24:26

Any statement may have a statement label, but statement labels are used only in the following 24:40+ ways:

- (1) The label on a branch target statement (8.2) is used to identify that statement as the possible destination of a branch.
- (2) The label on a FORMAT statement (10.1.1) is used to identify that statement as the format specification for a data transfer statement (9.5).
- (3) In some forms of the DO construct (8.1.5), the range of the DO construct is identified by the label on the last statement in that range.

[The ASSOCIATE and SELECT TYPE constructs aren't in the list, and the list isn't in alpha- 145:7-9 betical order.]

- (1) ASSOCIATE construct
- (2) CASE construct
- (3) DO construct
- (4) IF construct
- (5) SELECT TYPE construct

[Editor: Delete "and ... sequence".]

145:5-6

[The sentence "Unless there is a transfer of control out of the block, the execution of the block is 146:6-8 completed when the last executable construct in the sequence is executed" could be construed to say that a transfer out of the block does not complete the block's execution. Editor "Unless ... executed" \Rightarrow "Execution of the block is completed when the last executable construct in the sequence is executed or when a transfer of control out of the block takes place".]

[The "will be" at [146:35] is not parallel to the "is" at [146:34], and probably isn't proper 146:35 standardese. Editor: "will be" \Rightarrow "is".]

[It is not clear why the CONTINUE statement is referenced here. Editor: Delete "and execution 147:34 continues as though a CONTINUE statement (8.3) were executed".]

[Editor: after "type" insert ", and that type shall be an extension of the declared type of the 151:2 selector".]

[Editor: Insert "(16.7.5)" after "entity".] 151:36

[Editor: Insert "(5.1.1.8)" after "polymorphic".] 151:37

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[Editor: Delete "(5.1.1.8)".]	151:40
[Editor: "the those" \Rightarrow "those".]	151:44
[The phrase "may not" can be read "it perhaps wouldn't happen" (although such reading is perhaps prohibited by the rules of standardese). Editor: To remove the possibillity of this confusion, "may not" \Rightarrow "is not permitted to".]	152:34
[Editor: Delete "When value." because it duplicates [157:43-44].]	156:7-8
Editor: insert "of" before " m_3 ".]	156:22
[Editor: Insert ", an $associate-stmt$, an $end-associate-stmt$ " after " $action-stmt$ ". Insert ", a $select-type-stmt$, an $end-select-type-stmt$ " after " $end-select-stmt$ ".]	158:43-44
[Editor: Delete subclause 8.2.1 because it's duplicative and confusing.]	159:3-6
[Doesn't prohibit anything, and doesn't allow anything that would otherwise be prohibited. Editor: Make it a note.]	159:16
[Doesn't prohibit anything, and doesn't allow anything that would otherwise be prohibited. Editor: Make it a note.]	159:25
[Editor: Insert a blank before "(14)".]	159:39
1.1 Droblems with branching	

1.1 Problems with branching

These problems are spread across several pages, so the discussion can't be coherently put into page-and-line order with the above discussions.

The first problem is that the prohibitions against branching to the end statement of a construct are duplicated. An alternative to the solution implied here is to concentrate the prohibitions against branching to the end statement of a construct except from within the construct in 8.2. If that is the preferred solution, one might also argue that the body of 8.1.1.2 belongs in 8.2.

The second problem is that there is no discussion of what statements cause branching.

[Editor: "the" \Rightarrow "its" (see [158:47]).]	147:2
[Editor: "END SELECT statement" \Rightarrow "end-select-stmt".]	149:4-5
[Editor: "the" \Rightarrow "its" (see [158:46]).]	149:5
[Editor: "END SELECT statement" \Rightarrow "end-select-type-stmt"; "the" \Rightarrow "its".]	152:6
$\overline{\text{[Editor: "END ASSOCIATE statement"} \Rightarrow "end-associate-stmt"; "the"} \Rightarrow "its".]$	152:27
Branching may be caused by a GO TO statement, a computed GO TO statement, an arithmetic	158:42+
IF statement, a CALL statement that contains an alt-return-spec, or an input/output statement that	No new \P
has an END= or ERR= specifier. Although procedure references and control constructs can	
cause transfer of control, they are not branches.	

[These statements almost duplicate [147:1-2], [149:4-5] (where it says "the" instead of "its"), 158:46-2 [155:39-41] (where it says "that" instead of "its") and [155:44-1] (where the wording is entirely different, including the word "corresponding," which isn't here). There's also nothing here about SELECT TYPE or ASSOCIATE constructs. Duplication is not useful, and it's especially dangerous when it's not exact. Editor: Delete.]

1.2 Related material in section 16

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[Editor: "name" \Rightarrow "names"; "has" \Rightarrow "have"; second "construct" \Rightarrow "block"; "It has" \Rightarrow "They have".]	373:10
[Editor: ""as the" \Rightarrow "as an"; "scope" \Rightarrow "blocks".]	373:13
[Editor: first "construct" \Rightarrow "executed block"; second "construct" \Rightarrow "block".]	377:13

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