Subject:     EXIT from any labeled construct
From:        Van Snyder
Reference:   03-258r1, section 2.1.2, 04-109, 04-156r1, 04-395r1, WG5/N1626-J3-024

# 1   Editorial strategy

Replace *do-construct-name* in R844 with *construct-name*. Allow it to be the name of any construct that encloses the EXIT statement. Add a new subclause 8.1.7 that describes the EXIT statement but not loop termination. Specify there that the EXIT applies to the construct named by the *construct-name*. Do not change the interpretation of an EXIT statement that doesn't mention a *construct-name*.

# 2   Edits

Edits refer to 04-007. 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: Replace **8.1.6.4.4 Loop termination**:]                                                  168:3-23

**8.1.6.4.4 Loop termination**

A loop terminates, and the DO construct becomes inactive, when any of the following occurs:

(1)   Determination that the iteration count is zero or the *scalar-logical-expr* is false, when tested during step (1) of the above execution cycle,

(2)   Execution of an EXIT statement that belongs to the DO construct,

(3)   Execution of an EXIT statement or a CYCLE statement that is within the range of the DO construct, but that belongs to an outer construct,

(4)   Transfer of control from a statement within the range of a DO construct to a statement that is neither the *end-do* nor within the range of the same DO construct,

(5)   Execution of a RETURN statement within the range of the DO construct,

(6)   Execution of a STOP statement anywhere in the program, or

(7)   Termination of the program for any other reason.

When a DO construct becomes inactive, the DO variable, if any, of the DO construct retains its last defined value.

[Editor: insert a new subclause immediately before 8.2:]                                            169:1-

**8.1.7 EXIT statement**

The EXIT statement provides one way of terminating a construct.

R844     *exit-stmt*                    **is**   EXIT [ *construct-name* ]

C829     (R844) If an *exit-stmt* refers to a *construct-name*, it shall be within the range of that construct; otherwise, it shall be within the range of at least one *do-construct*.

An EXIT statement belongs to a particular construct. If the EXIT statement refers to a construct name, it belongs to that construct; otherwise, it belongs to the innermost DO construct in which it appears.

When an EXIT statement that belongs to a DO construct is executed, it terminates the loop (8.1.6.4.4) and any loops contained within the terminated loop. When an EXIT statement that belongs to a non-DO construct is executed, it terminates any loops contained within that construct, and execution continues with the first executable construct after the END statement for the construct to which the EXIT statement belongs.