Subject: Repair CO_UBOUND (UTI 105)
From: Van Snyder

1 Introduction

The CO_UBOUND intrinsic function can't inquire about the final upper bound of a co-array. It should be able to do so.

2 Edits

Edits refer to 07-007. 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: Delete "of co-rank greater than one".] 368:5-6

[Editor: Delete "and . . . one".] 368:9

[Editor: "$n - 1$" ⇒ "n".] 368:10

[Editor: Delete UTI 105.] 368:10+

[Editor: "$n - 1$" ⇒ "n".] 369:4

[Editor: "$n - 1$" ⇒ "n".] 369:10

369:11+

NOTE 13.5$\frac{1}{2}$

> The value of CO_UBOUND(CO_ARRAY,n) is CO_LBOUND(CO_ARRAY,n) + CEILING(REAL(NUM_IMAGES())/PRODUCT([(CO_UBOUND(CO_ARRAY,I) − CO_LBOUND(CO_ARRAY,I)+1,I=1,$n - 1$)]))−1. If NUM_IMAGES() < PRODUCT([(CO_UBOUND(CO_ARRAY,I) − CO_LBOUND(CO_ARRAY,I)+1,I=1,n)]) it is not possible for all co-subscripts simultaneously to have their upper-bound values.

[Editor: Replace "is" by "has the value" twice. Then append another example: "If B is allocated by the statement ALLOCATE (B [*]) then CO_UBOUND(B) has the value [NUM_IMAGES()] and CO_UBOUND(B,DIM=1) has the value NUM_IMAGES()."] 369:13