13 July 2006 J3/06-190

Subject: Unresolved technical issues 1 and 2

From: Van Snyder

## 1 1 Introduction

- 2 Unresolved technical issues 1 and 2 address the tension between the traditional single-thread Fortran
- 3 model and the inherently multi-thread nature of co-arrays. This paper proposes a multi-thread model by
- 4 explicitly specifying in Subclause 2.3.4 Execution sequence that each image has a separate execution
- 5 sequence. This is suggested at [196:3], but it ought to be explicit in Subclause 2.3.4 Execution sequence
- 6 This may not entirely address all of the concerns of unresolved technical issue note 2, so the edits do
- 7 not yet propose to delete it.

## 8 2 Edits

- 9 Edits refer to 06-007. Page and line numbers are displayed in the margin. Absent other instructions, a
- 10 page and line number or line number range implies all of the indicated text is to be replaced by associated
- 11 text, while a page and line number followed by + (-) indicates that associated text is to be inserted after
- 12 (before) the indicated line. Remarks are noted in the margin, or appear between [ and ] in the text.
- 13 [Editor: At the beginning of the first paragraph of Subclause 2.3.4 Execution sequence, which begins 15:11
- 14 "If a program..." insert the sentence "Each image of a program has a separate execution sequence. All
- 15 execution sequences are initiated when the program begins execution; if there is more than one, they
- 16 proceed independently unless their relative progress is affected by image control statements (8.5.1)."
- 17 Then, in the first extant sentence, insert "each execution sequence of" before "the program".]
- 18 [Editor: Delete unresolved technical issue note 1.] 17:3+1...
- 19 [Editor: Delete "Each image executes asynchronously."] 17:4-5
- 20 [Editor: Move Subclause 2.3.5 Images to [15:9+], placing it before Subclause 2.3.4 Executions se- 17:1-18:6
- 21 quence.]

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