

Subject: Feature creep – make allocatable components optional in constructors  
 From: Van Snyder

## 1 Introduction

2 This paper proposes additional functionality parallel to the capability introduced in Fortran 2003 to omit  
 3 a *component-spec* from a *structure-constructor* if the component has default initialization. The extension  
 4 is to allow to omit a *component-spec* for an allocatable component, with the effect that the component  
 5 of the constructed object is not allocated. One can think of constructors as requiring a *component-spec*  
 6 for every component that would have some kind of undefined status or value if it were omitted. Since  
 7 allocatable components are always either deallocated or allocated, with no limbo equivalent to undefined  
 8 pointer association status, this change makes sense.

## 9 2 Edits

10 Edits refer to 04-007. Page and line numbers are displayed in the margin. Absent other instructions, a  
 11 page and line number or line number range implies all of the indicated text is to be replaced by associated  
 12 text, while a page and line number followed by + (-) indicates that associated text is to be inserted after  
 13 (before) the indicated line. Remarks are noted in the margin, or appear between [ and ] in the text.

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14 [C484 engendered some confusion; it is perhaps defective. Editor: Replace C484:] 63:29-30

15 C484 (R457) If a *component-spec* is provided for an ancestor component, a *component-spec* shall not  
 16 be provided for any component that is inheritance associated with a subcomponent of that  
 17 ancestor component.

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18 [Editor: Within C485, insert “nonallocatable” before the first “component”, insert “a subcomponent of” 63:31-33  
 19 before “another” and strike “or that has default initialization” at the end, giving:]

20 C485 (R457) A *component-spec* shall be provided for a nonallocatable component unless it has default  
 21 initialization or is inheritance associated with a subcomponent of another component for which  
 22 a *component-spec* is provided.

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23 [Editor: Add a new sentence at the end of and within the paragraph immediately before NOTE 4.57:] 64:15

24 If an allocatable component has no corresponding *component-data-source*, then that component has an  
 25 allocation status of unallocated.