

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

## 1 Introduction

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

## 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.

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[Editor: Replace C485:]

63:31-33

C485 (R457) If a component is not allocatable and does not have default initialization, and is not inheritance associated with another component for which a *component-spec* appears, and is not inheritance associated with a component that is allocatable or has default initialization, a *component-spec* shall appear.

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

64:15

If an allocatable component has no corresponding *component-data-source*, then that component of the constructed object has an allocation status of unallocated.

## 3 Gratuitous editorialism

C484 engendered some confusion, perhaps because it is defective.

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[Editor: Replace C484:]

63:29-30

C484 (R457) If a *component-spec* appears for an ancestor component, a *component-spec* shall not appear for any component that is inheritance associated with a component of that ancestor component.