Subject: Feature creep – make allocatable components optional in constructors
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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.

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

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

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

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

[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 has an allocation status of unallocated.