Subject: Syntax and edits to implement decisions in 00-155 concerning ALLOCATABLE
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References: 00-155

# 1 Introduction

In paper 00-155, Malcolm provided alternative syntaxes to implement the capability to specify the type of object to be allocated by reference to another object. There was a straw vote, and the syntax "SOURCE = *source-variable*" won. This paper provides edits, as outlined in 00-155 but updated to reflect the result of the straw vote and to refer to 00-007r1.

# 2 Edits

Edits refer to 00-007r1. 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 immediately following text, while a page and line number followed by + indicates that immediately following text is to be inserted after the indicated line. Remarks for the editor are noted in the margin, or appear between [ and ] in the text.

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|---|---|---|
| | **or** SOURCE = *source-variable* | 102:15+ |

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|---|---|---|
| R631a *source-variable* | **is** *variable* | 102:23+ |

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Constraint: If SOURCE= is specified, *type-spec* shall not be specified, *allocation-list* shall contain only one *allocation*, and *allocate-object* shall be type compatible (5.1.1.8) with *source-variable*. 102:38+

Constraint: The *source-variable* shall be polymorphic and be a scalar or have the same rank as the *allocate-object*.

Constraint: Corresponding kind type parameters of *allocate-object* and *source-variable* shall have the same values.

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[Editor: After ";" insert "if a *source-variable* is specified, it allocates an object whose dynamic type and type parameters are the same as those of the *source-variable*;"] 103:6

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If SOURCE= is present, *source-variable* shall be comformable (2.4.5) with the *allocation*. If the value of a nondeferred nonkind type parameter of *allocate-object* is different from the value of the corresponding type parameter of *source-variable*, an error condition occurs. If the allocation is successful, *source-variable* is then assigned to *allocate-object* as if by intrinsic assignment for objects whose declared type is the dynamic type of *source-variable*. 103:25+

**J3 internal note**

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| Unresolved issue xxx<br>ALLOCATE(... SOURCE=... ) begs for an example. |