

Re: ALLOCATABLE arrays

Source: <http://coding.derkeiler.com/Archive/Fortran/comp.lang.fortran/2004-01/0170.html>

From: Herman D. Knoble (*SkipKnobleLESS_at_SPAMpsu.edu*)

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Lawson: Apologies if I misunderstand you post here. The bound(s) of an automatic array need not be defined in a module. E.g., see first case of working examples in file:

<http://ftp.cac.psu.edu/pub/ger/fortran/hdk/AutomaticArray.f90>

Skip Knoble, Penn State

On Tue, 6 Jan 2004 14:48:18 +0000, Lawson Wakefield <lawson@see.my.sig> wrote:

-|In article <btbnj7\$4qu\$06\$1@news.t-online.com>, Michael Metcalf

-|<metcalfm@acm.org> writes

-|>

-|>"Gus Gassmann" <hgassman@mgmt.dal.ca> wrote in message

-|>news:3FF953CD.BB2A1853@mgmt.dal.ca...

-|>>

-|>> Do I read this right?

-|>>

-|>> Suppose I declare

-|>>

-|>> subroutine test

-|>> integer :: i

-|>> dimension i(k)

-|>>

-|>> where k is set in a module somewhere. Is it then the case that

-|>> a) i gets allocated automatically on entry to test and deallocated

-|>> on exit

-|>> b) this operation takes (essentially) zero time?

-|>>

-|>> Is that really all there is to it? I'm afraid to look a gift horse

-|>> in the mouth, but this sounds too good to be true!

-|>>

-|>It is. The shape of an automatic array must depend on an argument to the

-|>procedure that it is local to. It is created on a stack at each invocation.

-|>The main use is for temporary storage ("Fortran 90/95 Explained", Section

-|>6.4).

-|

-|Are you absolutely sure about that Mike? Specifically, the requirement

-|that the shape of an automatic array must rely on an argument to the

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- |procedure would not appear to apply. My understanding is that the
- |bound(s) of an automatic array must be a specification expression. As
- |such this also allows for variables which are defined in a module, as
- |Gus suggests. Certainly, the latter usage works with a remarkably wide
- |range of Fortran 9x compilers if is not in fact allowed.
- |
- |Lawson Wakefield
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