

Removing nice assignment from Allocatable TR

Change Summary

Section 3.4

Replace the fourth paragraph with:

For intrinsic assignment of objects of a derived type containing an allocatable array component, the allocatable array component of the variable on the left-hand-side must have the same allocation status, and if allocated, the same shape, as the corresponding component of the expression.

In the example, before “CONTAINS” insert

```
INTERFACE ASSIGNMENT(=)2
  MODULE PROCEDURE RP_ASGN_RP
END INTERFACE
```

and after the “CONTAINS” insert

```
SUBROUTINE RP_ASGN_RP(LHS,RHS)
  TYPE(REAL_POLYNOMIAL) LHS, RHS
  INTENT(INOUT) LHS
  INTENT(IN) RHS
  IF (ALLOCATED(LHS%COEFF)) DEALLOCATE(LHS%COEFF)
  IF (ALLOCATED(RHS%COEFF)) THEN
    ALLOCATE(LHS%COEFF(SIZE(RHS%COEFF,1)))
    LHS%COEFF = RHS%COEFF
  END IF
END SUBROUTINE
```

Insert as footnote:

2. Due to the semantics of intrinsic assignment, this procedure is **not** invoked for assignment of `TYPE(REAL_POLYNOMIAL)` components when assigning a containing derived type. Therefore if the user of this module wants to put a `TYPE(REAL_POLYNOMIAL)` component into a derived type, it is necessary for that user to define an assignment subroutine for the that derived type (and any containing derived type) in order to get the convenient and safe assignment defined by the module procedure `RP_ASGN_RP`. That is, the burden of allocating storage of the appropriate shape for assignment falls on the user, not the Fortran processor.

Section 4

Add to the end of note 4.34.1:

Also, when the constructor value is used in an assignment, the corresponding component of the variable being defined shall have the same allocation status, and if allocated, the same shape, as the component in the constructor.

Change the new text for 7.5.1.5 to:

“that are not allocatable arrays. For allocatable array component the allocation status of the component of *variable* shall be the same as that of the corresponding component of *expr*; if the allocatable array components are currently allocated, they shall conform in shape and are assigned using intrinsic assignment.”