

To: J3

Subject: An attribute is specified when a keyword appears

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1. Introduction

We have a general rule that we say that syntax terms "appear" in syntax rules, and that attributes are thereby "specified" for entities. This is the straightforward dichotomy between syntax and semantics. Unfortunately, some of our more recent additions have confused these two concepts, ending up with attributes "appearing" and syntax items being "specified".

i.e. we should always say either

"the XYZ attribute is specified" or "XYZ appears"

and neither

"the XYZ attribute appears" nor "XYZ is specified".

2. Discussion

It would probably be best to use the syntax-oriented phrasing as much as possible in syntax constraints, and the semantics-oriented phrasing when possible in the ordinary text. However, this paper only changes things where they are wrong.

Another phrasing confusion is the occasional use of "XYZ is present" to mean "XYZ appears". This terminological inconsistency dates back to F95 at least, but is still undesirable (both because "present" has a subtly different technical meaning for optional dummy arguments, and because it is unnecessary variation in phrasing). We'll convert some/most/all(?) of these to "appears".

3. Edits to 01-007r1

[41:4+] Insert

"Constraint: The same *type-attr-spec* shall not appear more than once in a given *derived-type-stmt*."

{Missing constraint.}

[41:5] Replace constraint text with

"EXTENSIBLE and EXTENDS shall not both appear."

[41:8] Change "is present" to "appears".

[41:8-9] Change "be present" to "appear".

[41:10] Change "is present, neither" to "appears,"

Change "nor" to "or"

[41:11] Change "shall be present" to "shall not appear".

[41:12,14] Change "is present" to "appears" twice.

[41:14-15] Change "be specified for" to "appear in".

[41:16-17] Delete constraint.

{Procedure pointer components are already prohibited by the prohibition of all pointers in the previous constraint.}

[41:32,34] Change "is present" to "appears" twice.

[41:34] Change "be present" to "appear".

[42:18] Replace constraint text with

"A component shall not have both the ALLOCATABLE attribute and the POINTER attribute".

[42:25] Change "the POINTER attribute" to "POINTER".

[42:26-27] Change "the POINTER attribute" to "POINTER or ALLOCATABLE".

[42:28-29] Delete.

{Subsumed above.}

[42:39] Replace the text of the constraint with

"POINTER shall appear in each *proc-component-attr-spec-list*."

{Alt.: "The POINTER attribute shall be specified etc."}

[42:40] Change "is specified" to "appears".

{Alt.: Change "PASS_OBJ" to "the PASS_OBJ attribute".}

[43:14] Change "be specified" to "appear".

[43:16] Change "is not specified" to "does not appear"

Change "were specified" to "had appeared".

{We'll probably delete this altogether in another paper... it's just too gruesome.}

[43:45,46] Change "be specified" to "appear", twice.

[44:1] Change "PASS_OBJ" to "The PASS_OBJ attribute".

[44:10] Change "is specified" to "appears".