Subject: Fix undefined BNF terms

From: Malcolm Cohen

1. Introduction

There are several BNF terms which are used in the standard for which no definition is available whatsoever. This paper addresses this problem.

2. F95 Interpretation

The BNF term *scalar-int-constant-subobject* has NO DEFINITION in Fortran 95, but is used to construct the DATA statement. It might be obvious from the name what was intended, but we really ought to fix this. This paper does not, however, contain an interp request.

3. The undefined terms

local-defined-operator and *use-defined-operator* are used in R1109 but nowhere defined.

scalar-constant-subobject and *scalar-int-constant-subobject* are used in R546 and R547 respectively (the DATA statement) but nowhere defined.

scalar-default-char-initialization-expr is used in R913 but nowhere defined.

4. Edits to 00-007r3

[86:1+] Move [86:8-10] to here.

{Put the constraint immediately after the syntax rule.}

[86:11-14] Delete constraints

{We'll put these properly into the new BNF below.}

[86:18+] Insert BNF and constraints:

"R547a *constant-subobject* **is** *designator*

Constraint: *constant-subobject* shall be a subobject of a constant.

Constraint: Any subscript, substring starting point, or substring ending point shall be an initialization expression.

R547b *int-constant-subobject* **is** *constant-subobject*

Constraint: *int-constant-subobject* shall be of type integer."

{Appropriate syntax rules and constraints for the undefined terms.}

[180:23] Delete "*default-*".

{Use a syntax term that exists.}

[181:6] Delete "*default-*".

{Use a syntax term that exists.}

[181:7] Before "have" insert "be of type default character and shall".

{Put character kind requirement into the relevant constraint. }

[238:11-13] Replace constraints with syntax rules

"R1111a *local-defined-operator* **is** *defined-unary-op*

or *defined-binary-op*

R1111b *use-defined-operator* **is** *defined-unary-op*

or *defined-binary-op*

Constraint: Each *use-defined-operator* shall be a public entity in the module."

{Define syntax terms used by R1109. The constraint is probably unnecessary, but so are several other constraints hereabouts.}