Subject:Comments on Clause 4From:Van Snyder

#### 1 **1 Edits**

2 Edits refer to 07-007r1. Page and line numbers are displayed in the margin. Absent other instructions, a

- 3 page and line number or line number range implies all of the indicated text is to be replaced by associated
- 4 text, while a page and line number followed by + (-) indicates that associated text is to be inserted after
- 5 (before) the indicated line. Remarks are noted in the margin, or appear between [ and ] in the text.
- 6 [Editor: Combine the paragraphs and simplify: Replace "is" by a comma, delete the period after "4.4", 45:17-18
  7 delete "The syntax for denoting a value", and delete "the particular value" giving:]
- 8 The syntax for literal constants of each intrinsic type, specified in 4.4, indicates the type, type parameters,9 and value.

10	[Editor: Replaced "given a name" by "named".]	45:19
11	[Editor: Delete "be used to".]	45:20
12	[Editor: Delete "Such arrays." The requirement belongs at [79:19].]	45:21-22
13	[Sounds like the function has the OPERATOR interface. Editor: Replace "with" by "using".]	45:26
14	[Editor: Insert ", 7.1.6, 12.4.3.4.1" after "4.5.11".]	45:29
15	[Editor: Move [46:1] to replace "A type might be parameterized."]	45:31-46:1
16	[Editor: Replace "with" by "by".]	46:11
17	[Editor: Replace "will be" by "are".]	46:2+3
18	[Editor: Delete "The".]	47:33
19	[Editor: Replace "have been" by "be".]	48:4
20	[Editor: Replace "was" by "were".]	48:8
21	[Editor: Before "is" insert "that is not an unlimited polymorphic object".]	49:3
22 23	[Editor: Delete Note 4.6; this seems like a weird place to quote C611, since there's nothing else here about components.]	49:6+1-3
24	[Editor: Delete C410, in light of C411. If we must have it, we need an identical one at C412a.]	50:11
25 26 27 28	[Simpler to refer to 7.1.9.2. Delete [53:1-6]. Replace the second sentence at [53:8-10] by the following:] Otherwise, the kind type parameter value of the complex literal constant is the same as the kind type parameter of the result of a numeric operation in which $x_1$ and $x_2$ are the real and imaginary parts (7.1.9.2).	53:1-10
29	[Editor: Add the list to Annex E.]	54:17-22
30	[Join the constraints: Replace "type. (R430) If SEQUENCE appears" by "type, and".]	61:3-5
31 32	[Editor: In the third line replace ". Nor" by ", nor" (starting a sentence with a conjunction is bad style). In the sixth line replace "will always be" by "is" (the situation might be different in the year 2350).]	61:Note 4.23
33	[Editor: Insert "of type" before "default".]	63:14
34	[Editor: Insert a right parenthesis after "7".]	64:5
35 36	[The constraint doesn't constrain anything, since it explicitly allows everything the syntax allows. Editor: Delete C443. If we must keep the essence, make it a note.]	65:12-14
37	[Editor: Insert $\ before "si".$ ]	65:24
38	[Editor: Delete second "be".]	65:25

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39	[Editor: Replace "the POINTER attribute" by "POINTER attributes".]	65:28
40	[Editor: Delete second and third "be".]	66:1-2
41 42	[Editor: Insert "if DIMENSION( <i>component-array-spec</i> ) appears in" before "its" and delete "contains <i>component-array-spec</i> ".]	66:19-20
43	[We don't have "pointers to". Editor: Replace "pointer holding" by "character array pointer".]	67:Note 4.34
44 45 46	[Overlooks unlimited polymorphic and CONTIGUOUS. Should be referring to pointer assignment to avoid such problems. Editor: Replace "the pointer rank" by "the target would be permitted as a target of the pointer in a pointer assignment (7.2.2)".]	68:15-17
47 48	[Sounds like component keywords are not used in structure constructors. Editor: Replace "where" by "if".]	70:3
49	[Editor: Insert ", and shall not appear unless the binding is within the definition of an abstract type".]	73:11
50	[Editor: Delete "A deferred type."]	73:18-19
51 52	[Can be simplified. Editor: Replace "dummy argument variable" by "nonoptional, nonpointer, nonallocatable, nonpolymorphic dummy argument".]	74:13-14
53	[Editor: Insert "scalar" before "values". See the edit for [45:21-22].]	79:19
54	[Editor: Replace "nonprocedure" by "data" (which is the term used in R441).]	80:4
55	[Editor: Delete "an allocatable entity of the same rank," since that's covered by the rest of the paragaph.]	81:6
56	[Editor: Insert "(7.1.6)" after "operation".]	81:16
57 58 59	Editor: Replace "Each" by "A scalar object of the type and type parameters of each", insert "scalar" before "variable", replace "this" by "the", insert "specified by <i>type-spec</i> " after "parameters", and insert a new paragraph "The dynamic type of every <i>ac-value</i> expression shall be the same."	84:14-16

### 60 **2 Questions without answers**

61	Is the set of valid values for objects of type bits really specified by the standard?	45:12
62 63	Why did we choose 18, which seems entirely arbitrary? It would be better to tie the requirement to DOUBLE PRECISION by way of NUMERIC_STORAGE_UNIT.	49:18-19
64	Am I imagining things or does this contradict C420?	55:7-10
65	Why list the operation here?	55:34-56:1
66	Why list the operations here?	57:21-25
67 68 69	Doesn't the "nonpointer, nonallocatable" part apply to the dummy argument, not the actual argument? Should this be " an actual argument that is associated with a nonpointer, nonallocatable dummy argument with INTENT(OUT)?" See [98:15-17].	75:35-36
70 71 72	Did we plan to allow construction of polymorphic arrays? If so insert a new paragraph "The dynamic type of every <i>ac-value</i> expression shall be the same." Otherwise, insert "nonpolymorphic" before "variable" in the edit for [84:14-16] in the previous section, and don't insert the new paragraph.	84:14-16

## 73 **3** Spec change from 2003

# The "if and only if" seems too strong: If a procedure that has a passed-object dummy argument is 68:9 bound to a type that is neither SEQUENCE nor BIND it has to suffer the performance penalty of a polymorphic argument. Couldn't we put the requirement on inheritance, or maybe even overriding?

77 What's wrong with internal procedures?