Subject: Miscellaneous remarks
From: Van Snyder
References: 00-240, 00-317, 00-318, 01-115, 01-103r2

Here are several things that may or may not need attention. I offer edits for a few, but mostly I don't offer edits, or I offer crappy ones.

Page and line numbers refer to 01-007r1.

1 Edits

Edits refer to 01-007r1. Page and line numbers are displayed in the margin. Absent other instructions, a page and line number or line number range implies all of the indicated text is to be replaced by immediately following text, while a page and line number followed by + (-) indicates that immediately following text is to be inserted after (before) the indicated line. Remarks are noted in the margin, or appear between [and] in the text.

1.1 Passed at meeting 156 but not implemented

According to the minutes of meeting 156 (paper 01-188r1), the edits in this section, which were in section 3 of paper 01-103r1, were passed on 21 March (Wednesday). They have not been implemented in 01-007r1.

[Editor: Exdent "`END`".]	193:34
[Section 15 is more closely related to intrinsic procedures and modules (section 13) than to the material of sections 14 or 16. Section 14 has traditionally been considered to be the one that ought to be last (perhaps to make it easy to remove). Editor: Move section 14 to be after section 16. Although one expects Frame to update the section number at [xiv:41], the editor may wish to exchange [xiv:41] and [xiv:42].]	§§13-16

1.2 Miscellaneous edits

[Editor: Add this instance of PROCEDURE to the index. It's already indexed as "Statement, PROCEDURE".]	246:24
[Editor: Add these instances of IMPORT to the index.]	247:1,29-33
[Editor: Add this instance of PROCEDURE to the index as "Statement, PROCEDURE". It's already indexed as "PROCEDURE".]	252:7
[Editor: Move [252:16] to [252:11+]; move [252:15] to [252:12+].]	252:11-12
[What is a "dummy argument to" a procedure? Editor: "to" ⇒ "of" twice.]	273:28,29
[The phrase "values n in the range of values n with" is redundant. Editor: Delete "of values n with".]	329:4
[Editor: "13.12.2.3" ⇒ "13.12.3".]	338:31

2 Various problems

2.1 Problem for /data

2.1.1 PARAMETER restrictions wording inconsistencies

The restriction about PARAMETERs being defined before use are duplicated (once in 5.1.2.10 The PARAMETER attribute, and once in 5.2.9 PARAMETER statement). They also differ, which is worrying for us, never mind the poor translators. In any case, the wording is poor – so poor that it encourages one to think the passages ought to be in 7.1.7.

Also, [78:39] and [85:18] say "A named constant shall not appear within a format specification". This is also worrying, but perusal of the BNF for format specification fails to reveal any syntax for inserting a named constant into a format specification anyway! Either this should be a note (and should be in 10.1.1 since it is more pertinent to FORMAT than it is to PARAMETER) or should be deleted as being wholely uninteresting. After all, there are multitudinous places where named constants cannot appear (e.g. in NAMELIST).

2.1.2 Edits

A named constant shall not be referenced unless it has been defined previously in the same statement, defined in a prior statement, or made accessible by use or host association.	78:33-38
[There is already a back-pointer to 5.1.2.10 for restrictions on the PARAMETER attribute, at [85:2]. Editor: Delete unnecessary requirement.]	78:39
[Editor: Delete duplication.]	85:14-17
[Editor: Delete unnecessary requirement.]	85:18

2.2 Problem for /JOR

2.2.1 Use of ACHAR(10) for end-of-record during stream I/O

The paragraph at [221:7-13] is in a subclause entitled "Character editing," and therefore doesn't apply to unformatted stream output. The slash edit descriptor is specified in 10.7.2 to create a new record during formatted stream output. Lacking an explicit indication that the description of end-of-record in 9.5.3 doesn't apply to stream input, it appears that it does. Therefore there appears to be no reason to use ACHAR(10) as an end-of-record signal during stream output. If we must have a character or character sequence that is interpreted as a new-record signal, it should be provided by a named constant from the ISO_FORTRAN_ENV module.

2.2.2 Edits

[Editor: "contains ... ACHAR(10)" ⇒ "contains the character given by the END_OF_RECORD named constant from the ISO_FORTRAN_ENV module (13.12.4).	221:8-9
[Editor: "a newline" ⇒ "the END_OF_RECORD character".]	221:10
[Editor: "each newline" ⇒ "each END_OF_RECORD character".]	221:10
13.12.4 END_OF_RECORD	339:20+

The value of the default character constant END_OF_RECORD shall be a character that causes a record to be terminated if it appears as part of formatted stream output (10.6.3). The character length shall be one.

3 Questions or remarks with non-edits or crappy edits

If they need attention, we can develop edits at the meeting, if we have time, or insert unresolved issue notes.

Page and line numbers refer to 01-007r1.

3.1 Section 8

There was a discussion in /data subgroup concerning whether the associate name ought to have the POINTER or ALLOCATABLE attribute if and only if the selector does. The outcome was apparently that they ought not to. It wouldn't hurt to have a note here explaining why not, because it's not obvious. On the other hand, if there's no technical reason for the associate name not to have the POINTER or ALLOCATABLE attributes, it would be useful: It would make it easier to allocate, deallocate and pointer-assign components that have complicated antecedents. /Data should re-examine this. If it can be done, should it be done in §14? Maybe it already is done at [357:16-32].	156:33

3.2 Section 9

The term "base object" is defined only by reference to structures. What if the list item isn't a structure?	182:42
9.5.3 could and perhaps should be incorporated into 9.9.	9.5.3
Doesn't account for user-defined derived-type input/output procedures.	187:43-44
Are 9.5.4.4.1 and 9.5.4.4.2 affected by user-defined derived-type input/output? These subclauses don't mention it.	190-191
Is the term "undefined" defined for other than variables?	191:3
I find "if not A then B" to be clearer than "B unless A". The sentence "In the latter case ... (9.5.4.4.3)" would be clearer as "In the latter case, if the derived-type list item is not processed by a user-defined derived-type input/output procedure (9.5.4.4.3) the transfer is in the form of values of intrinsic types to or from the components of intrinsic types that ultimately comprise these structured objects." But see the remark below for [191:17].	191:16-19
Replacing "components ... comprise" by "effective items (9.5.2) that result from expanding" would be more precise.	191:17
9.8.1.12 is the only subclause of 9.8.1 that deals with two specifiers. Couldn't they be treated with separate subclauses? This will be a valuable change given that the advice in 01-143 was followed.	9.8.1.12
Unresolved issue note 124 questions the precision of the wording of the requirement that "the value of a specifier in an input/output statement shall not depend on any *input-item*, *io-implied-do-variable*,...." It should also be noted that the value of the variable associated with the IOSTAT= specifier depends, at least indirectly, on these factors.	208:30-33

3.3 Section 11

Contradicts [9:11-12] and [237:38-39].	237:7-8

3.4 Section 14

What do subclauses 14.1.2.4 and 14.1.2.5 have to do with "Local Entities," the title of the parent subclause, 14.1.2? It seems that the material in these subclauses belongs in section 12.	342-347
Subclause 14.1.2.3 has nothing to do with generic procedure references. The title ought to be "Unambiguous generic procedure definitions" or "Restrictions on generic procedure definitions such that references are unambiguous."	343:24
The sentence "If a generic..." conflicts with, or at least belongs in [344:41-42].	344:14-16
14.1.2.4.1 takes no account of procedure pointers in generics.	345
Either "procedure" should be "interface" at [345:25], or vice-versa at [345:31].	345:25, 31