Disposition of Comments on Approval Ballot for PDTR 15581

1. Introduction

This document records the actions taken in response to the PDTR ballot comments. All changes have been approved by WG5.

2. Responses to DIN comments

(1) "Change all "1996" that refer to IS 1539-1 to "1997".

Response: Changes done.

(2) page i, title:
Change "Enhanced Derived Type Facilities" to "Enhanced Data Type Facilities". This is to line up with SC22's change of subject of JTC 1.20.02.01.04.

Response: Changes done.

(3) Page iv, Introduction:
The first paragraph does not fully comply to WG5/N1152, section 3. Especially, delete "with other new facilities": there might also be difficulties in integrating with existing features.

Response: Changes done.

(4) Page 1, title:
Change "Data-type enhancements" to "Enhanced Data Type Facilities".

Response: Changes done.

(5) Page 1, section 1.1
First par. is incomplete: mention dummy arguments and function results.

Response: Changes done.

(6) Page 3, section 3.1, last bullet:
Change "On exit" to "If it is currently allocated on exit" -- if it is not currently allocated, no deallocation and thus no change in the allocation status occurs.

Response: Changes done (slightly reworded).

(7) Page 4, Example:
Before the ALLOCATE statement, add a line

IF (ALLOCATED(ARRAY)) DEALLOCATE(ARRAY) ! or STOP

It is illegal to allocate a currently allocated array, this should be checked instead of causing an error in the subsequent ALLOCATE.

Response: Changes done (slightly reworded).

(8) page 4, section 3.3:
Change "after execution of the statement" to "after evaluation of the expression": this allows more economic use of memory, which may be very important in expressions involving large arrays.

Response: Change not done; the text is correct as it stands, making this change would cause a technical flaw.

(9) page 6:
Change "optimizations, when" to "optimizations, if"? To avoid confusion: isn't it so that the optimization occurs at the time *when* the variable's allocatable component is allocated, but only *if* the expression's allocatable component is allocated?

Response: Change not done; the text is correct as it stands and the replacement text is less clear.

(10) page 7, Example, FUNCTION RP_ADD_R:
Before the assignments, add

```
IF (.NOT.ALLOCATED(P1%COEFF)) STOP "P1%COEFF IS NOT ALLOCATED."
IF (SIZE(P1%COEFF)==0   ) STOP "P1%COEFF HAS SIZE ZERO."
```

Both conditions would cause problems with the assignments, and should be checked.

Response: Change not done; the example is correct as far as it goes, and sufficient to show the use and utility of the extension.

(11) page 7, Example:
Also show the program output.

Change not done; the example is merely illustrating the use of the extension and is not intended to be a complete software product or to illustrate the results of computations.

(12) pages 8+:
Check / update edits to refer to WG5 / N1191 or X3J3 / 96-007r1.

Response: Changes done.

(13) page 12, edit for [109]
Change "allocatec" to "allocated".

Response: Change done.