JULY 1992

TITLE: Summary of Voting on DTR 10182: Information Technology - Programming Languages, their environments and systems software interfaces - Guidelines for Language Bindings

SOURCE: Secretariat ISO/IEC JTC1/SC22

WORK ITEM: JTC1.22.14

STATUS: New

CROSS REFERENCE: JTC1 N2018, N1818

DOCUMENT TYPE: Summary of Voting - DTR

ACTION: For information to SC22 Member Bodies. The comments are submitted to WG11 for consideration in preparing the final version of the TR document.

Address reply to: ISO/IEC JTC1/SC22 Secretariat
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ISO/IEC JTC 1 N 1818, DTR 10182 - Information Technology - Programming Languages, their Environments and Systems Software Interfaces - Guidelines for Language Bindings

SOURCE: ISO/IEC JTC 1 Secretariat

PROJECT: JTC 1.22.14

STATUS: This DTR has been approved for publication as a Technical Report Type 3.

REQUESTED ACTION: Prior to submission of the text for publication, the SC 22 Secretariat is requested to ensure proper review and consideration of the comments received on this letter ballot.

DISTRIBUTION: P and L Members
SC 22 Secretariat
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Austria approves PDTR 10182 "Guidelines for Language Bindings" while making following comments of general, technical and editorial nature.

**General comment**

The extension of procedural interfaces to object-oriented environments are not considered. At least not explicitly. They would, however, provide much more flexibility for the application of procedural bindings. (See also technical comment 2).

**Technical comments**

1) Page 3 / References to I.Herman et alii and R.Simons:
   These publications are either pretty old and/or hardly used (namely that about Minimal GKS). There is some doubt about their usability in the context of (P)DTR 10182. It is therefore proposed to remove these references.

2) Page 6 / 2.2 / last sentence on this page:
   This method is also used in object-oriented environments, where the actual structure of parameters often is not known prior to invocation. Therefore, this sentence is no real argument against procedural bindings.

3) Page 12 / Guideline 8:
   It is unclear what this implies for binding methods 3, 4, and 5. Or should this guideline be moved into section 3.4.2?

4) Page 16 / Guideline 20:
   It is not true that the choice of the binding method depends on the selected programming language! For all procedural ISO-languages (Fortran, Pascal, Ada, C), both procedural and native syntax bindings can be developed.
   In addition, the decision which binding shall be developed has to be carried by both the system facility committee and the language committee rather than by the language committee alone.
   It is recommended therefore, to remove this guideline or reword it appropriately.

5) Page 19 / Guideline 27, and
   Page 20 / Guideline 32:
   Both guidelines are of general applicability and should therefore be moved into 3.2.

6) Page 21 / Guideline 38:
   This is a statement rather than a guideline. It should be removed or reworded. For example:
   "If a binding language allows the definition of data types equivalent to, or subset of, some basic type, then data types of the functional interface standard may be bound to more than one data type in the programming language."

7) Page 23 / Guideline 45:
   It is unclear why names of data types could not be treated like function names concerning the usage of abbreviations.

8) Annex A and B:
   Their relationship to (P)DTR 10182 should be stated (e.g. normative or informative).

9) Annex B / Issues:
   It would be helpful to record solutions, if any, and the final voting or the most important argument for the decisions taken.
Editorial comments

1) Whole document:
   There are many double-spaces spread over resulting in word gaps appearing too large. Examples are:
   - Page 2 / 6th line / “Some system”
   - Page 4 / 1st line / “An abstract”
   - Page 6 / 1st par. after ‘Method’ list / 1st line / “a discussion”
   - Page 6 / 1st par. after ‘Method’ list / 4th line / “they may”
   - Page 8 / 2.4 / 4th par. / 2nd line / “to process the”
   - Page 8 / 2.5 / 5th par. / 1st line / “that the”
   - Page 9 / 2.7 / 4th par. / 1st line / “will determine”
   - Page 10 / 2nd line from bottom / “including relevant”
   - Page 14 / 3.4.2 / 2nd par. / 1st line / “experiences and”
   - Page 23 / Guideline 47 / 8th line / “minimize revisions in”.

2) Page 3 / Reference to COBOL:
   Replace “ISO/IS” by “ISO” or “ISO/IEC”. If the second alternative is chosen, then do the same with the reference to Ada immediately following after.

3) Page 4 / 4th par. from bottom:
   “LANGUAGE BINDING OF f TO I I LANGUAGE BINDING OF f” appears somehow confusing. Split either into two lines or correct it appropriately.

4) Page 10 / Guideline 1 / 1st line of remarks:
   Replace “… for the system facility and…” by “… for both the system facility and…”.

5) Page 10 / last line:
   Remove leading blank.

6) Page 12 / Guideline 12 / 2nd line:
   “languagedifferences” should read “language differences”.

7) Page 14 / 3.4.2 / 3rd par. / last line:
   “... keep a ...” should read “... keeps a ...”.

8) Page 19 / Guideline 30:
   It is recommended to remove “,”, as one standard is generally better than two for a single purpose”, because it is evident..

9) Page 23 / Guideline 47 / last sentence:
   It is proposed to remove the parentheses, because this statement is important enough to get the same weight as the rest of the guideline.

10) Page 24 / Guideline 48 / first line:
    “inter-action” should read “interaction”.

11) Page 24 / Guideline 51 / first line of remark:
    Replace “heavy” by “profound”.

12) Page 24 / Guideline 51 / 2nd line of remark:
    Replace “Even when…” by “Even if…”.

13) Page 25 / Guideline 53 (the first one) / last sentence:
    Replace “is best avoided” by “is avoided best” or “should be avoided”.

14) Page 25 / Guideline 53 (the second one):
    Should get the number 54.
CANADIAN COMMENTS ON DOCUMENT NO. JTC1 PDTR10182(1/N1818)

TITLE: Information Technology - Programming Languages - Guidelines for language bindings

Canada approves the above document, and submits the following comments:

On page 26, section 4, Future Directions, the IRDS is mentioned as a mechanism to facilitate processing programs with multiple system facilities bindings. Although this may be true, it would be patchwork. Canada believes the solution lies in language-independent procedure calls and data types. Therefore, Canada suggests that instead of stating, in the first paragraph "there is little that any particular language committee can do on its own", SC22 be instructed to have its language-independent working groups develop these types of cross-language facilities.

Italian Comments

Italian comments on the DTR 10182 - Information technology - Programming Languages, their environments and Systems Software Interfaces - Guidelines for Languages Bindings.

Italy approves the publication of the document as Type 3 Technical report with the following editorial comment.

Clause 1.1
Page 1
Type Editorial
Rationale Third paragraph references Section 1.4 "Language Binding", which is inconsistent with the title and contents of the section 1.4 "Terms and abbreviation".