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Title	Comment Disposition Report of FCD 15437: Information technology - Enhancements to LOTOS (E-LOTOS).
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ISO/IEC: E-LOTOS FDIS
E-LOTOS Comment Disposition Report

The present E-LOTOS document has dealt with the comments attached to the "Letter Ballot Summary of FCD 15437: Information Technology – Enhancements to LOTOS (E-LOTOS)" as follows:

AUSTRALIA

Australia indicated that indicated in his comment that the abstain vote was due to lack of expertise. No answer is considered necessary.

CANADA

Canada supports the E-LOTOS CD, which is high-quality and should be taken expeditiously to completion.

However Canada requests that 'inheritance' be included in E-LOTOS at the DIS stage, so that the language could be considered object-oriented.

Methods to include inheritance in LOTOS were discussed by Steve Rudkin in a well-known article appeared in FORTE IV (1992).

Canada believes that the inclusion of inheritance would considerably improve the usefulness of the language and its chances to be used in industrial applications.

ANSWER: The changes needed to introduce object orientation in E-LOTOS are very big. No object oriented formal model which includes inheritance has been submitted or proposed to the WI and inheritance cannot be included.

STATUS: Not accepted.

FRANCE

(Comment 1) MAJOR COMMENT: It is regrettable that FCD 15437 does not support operator overloading, a feature present in all modern computer languages. Due to this lack, it will be impossible to write, e.g., simple arithmetic expressions in E-LOTOS using the usual syntax. AFNOR urges the E-LOTOS Committee to consider this issue, which is crucial for the applicability and success of E-LOTOS.

ANSWER: This decision has been already discussed and decided in the WI and no significant fact has happened since the decision was taken. In any case no complete proposal has been submitted.

STATUS: Not accepted.

(Comment 2) MAJOR COMMENT: The existence of run-time type-checking (the 'etc' type and record subtyping) will make implementation complex and inefficient, for a negligible practical benefit, because similar can be introduced in a much simpler way. In this respect, it is unfortunate that the E-LOTOS Committee has not retained the lessons from LOTOS, not to introduce features in the language that are notoriously difficult to implement.

ANSWER: This decision has been already discussed and decided in the WI and no significant fact has happened nor proposals have been submitted since the decision was taken.

STATUS: Not accepted.

(Comment 3) TECHNICAL COMMENT: AFNOR suggests to simplify the definition of the generalized parallel operator following the technical proposal enclosed as an appendix.

ANSWER: The document "A Graphical Parallel Composition Operator for Process Algebras" is a good discussion on parallel composition, but it lacks a complete technical proposal for the inclusion of the operator. In particular, the concrete syntax, abstract syntax, static semantics rules, untimed dynamic semantics rules and timed semantics rules are needed.

STATUS: Not accepted.

JAPAN

Comment JPN-001EB: Document Structure

Rationale: The structure of this FCD document is not consistent with that of ISO International Stardard documents.

Proposed Improvement: The document should be re-written accordint to "ISO/IEC Directives, Part3: Rules for the structure and drafting of International Stardards".

STATUS: Accepted.

Comment JPN-002TL: Chapter 7 Predefined library

Rationale: The predefined types are insufficient as compared with LOTOS, SDL, ML, and Z.

Proposed Improvement: The predefined library should define the following types:

1. Representation of values decimal, hexadecimal, octal representation.
2. Power set
3. Tuple
4. Time

ANSWER: Representation of values decimal already exist as predefined types. Hexadecimal and octal may be added if a proposal is provided. Tuples are a basic construction of E-LOTOS (records). Sets are included as predefinded type. Time type is just naturals used in certain behaviour expressions.

STATUS: Partially covered.

Comment JPN-003E:Technical terms (4.3.3, 5.2.5, 5.5.2, and so on)

Rationale: The FCD includes several technical terms which are neither defined nor narratively explained.

Proposed Improvement: The FCD should briefly explain "signatures", "functor"(4.3.3), "diamond rule"(5.2.5), and "diamond importation"(5.5.2).

ANSWER: Explanations have been added.

STATUS: Accepted.

Comment JPN-004TL(B Distinction between LOTOS and E-LOTOS

Rationale: Some operators of E-LOTOS are written as the same symbols used in LOTOS, but their semantics are slightly different, because the semantics of E-LOTOS does not fully surpass that of LOTOS. Therefore, we are afraid that some readers may confuse the operators of E-LOTOS with those of LOTOS.

Proposed Improvement: The FCD shoud annotate such differences explicitly. Also, we propose that it presents rewriting rules from LOTOS to E-LOTOS, in order to illustrate how existing specifications written in LOTOS is translated into E-LOTOS.

ANSWER: the appendix B "Guidelines for LOTOS to E-LOTOS translation" addresses this comment and is considered sufficient.

STATUS: Not accepted.

UNITED KINGDOM

Comment:

1.Title: The current title suggests that this standard consists of extensions in the form of an amendment to ISO 8807. We suggest that a title such as "Information technology - Enchanced Lotos (E-LOTOS)" would be preferable.

STATUS: Not accepted.

2. Scope: The standard should have a Scope clause as required by the ISO Directives.

STATUS: Accepted.