Minutes of the ISO E-LOTOS meeting

Southampton (UK), July, 21–27, 1994
Revised version

1 Participants

Arnaud Février (France)
Hubert Garavel (France)
Guy Leduc (Belgium)
Luc Léonard (Belgium)
Luis Llana (Spain)
Elie Najm (France)
Jose Mañas (Spain)
Juan Quemada (Spain)
Richard Sinnott (UK)
Jean-Bernard Stefani (France)

Juan Quemada welcomes all the participants.

Hubert Garavel is appointed secretary.

2 Agenda

- Reports
- List of documents
- Presentation of documents
- Revision of behaviour model
- Revision of data model

- Preparation of the planning for producing the E-LOTOS Working Draft
- Liaison and coordination issues:
  - Joint meeting with WG7
  - Response to the SC24 Liaison document

The agenda is approved.

3 Reports

Since the last E-LOTOS meeting held in Madrid, the New Work Item (NWI) on Extended LOTOS was voted. The number of the NWI is 1.21.20.2.3.

Juan Quemada invites all national delegations to express their views in the framework the the NWI.

The WG1 Conveyor (Marc Lévillon) finished his mandate and there is no candidate to his succession.

4 List of input documents

reference	*source*	title
[SOU1]	AFNOR	comments on WG1N1314 (WG1N1335)
[SOU2]	AFNOR	Introducing mobility in LOTOS (WG1N1336)
[SOU3]	AFNOR	Six improvements to the process part of LOTOS (WG1N1337)
[SOU4]	ISO	Summary of voting of WI 1.21.20.2.3
[SOU5]	Belgian experts	A formal definition of time in LOTOS
[SOU6]	Belgian experts	Comments on annex F of the Revised Draft
[SOU7]	Belgian experts	A proposal for data types for E-LOTOS
[SOU8]	AENOR	Spanish position on the Revised Draft
[SOU9]	AENOR	Predefined and external data types for E-LOTOS
[SOU10]	ISO/SC24	Use of FDTs in SC24 Standards

5 Next E-LOTOS meetings

The next interim meeting will be held in Paris (France) on the 6, 7 and 8 of February 1995.

In absence of information regarding the plenary SC21 meeting in Ankara (summer 1995), the schedule is kept as is.

6 Provisional agenda for producing the E-LOTOS standard

July 1994: Working Draft
January 1995: Revised Working Draft
July 1995: Committee Draft
July 1996: Draft International Standard
July 1997: International Standard

7 Technical work

7.1 Suspend-resume operator

We have reviewed the Suspend/Resume proposal described in Annex A of the Revised Draft. The following comments have been made:

1. At least, algebraic properties of the proposed operator should have been described.
2. Further evidence of practical needs have to be provided.
3. Ideas to generalize the proposed |[> operator have been discussed.
4. It is necessary to compare the proposed |[> operator with existing operators, especially the [> operator.

7.2 Compound events

The benefits of introducing compound events are marginal in presence of satisfactory contributions based on the integration tagged typed gates and a satisfactory solution for the "non-atomic termination" problem.

Therefore, the introduction of compound events in E-LOTOS is not considered necessary because proposal which solve these two problems exist (Annexes B and D).

7.3 Priorities

Priorities have been considered an interesting feature for E-LOTOS. However, further studies are needed in order to find a proper solution for their introduction. Significant research is going on on this topic and it has to be reviewed.

The existing proposal on priorities (Annex H of the Revised Draft) should be improved to introduce priority scoping.

7.4 Mobility

The proposal [SOU2] has been discussed and its inclusion as an annex of the revised Draft has been decided. Mobility has been considered a desirable feature for E-LOTOS.

7.5 Time

Both proposals (annexes F and G) have been judged as having a large common intersection and it is agreed generating a common model based on a semantics defined in terms of Time/Action Trees (with two types of transitions: time transitions and action transitions, like in annex G) and a compact notation for action prefix (like in annex F).

An informative annex containing an equivalent semantics in terms of Timed-action trees (actions labelled with time stamps, like in annex F) will be provided.

7.6 Modules

Two proposals exist. They are not mature enough, but unanimity exists that modularity os a desirable feature for E-LOTOS, provided that mature complete proposal can be found.

7.7 Six improvements to the process part of LOTOS

Proposal [SOU3] has been presented. The proposed improvements are left for further consideration when the final shape of E-LOTOS is defined.

7.8 Generalized termination and enabling

There is unanimous approval for having in E-LOTOS a construct that allows to model exception-handling.

The proposal for introducing generalized enabling (Annex B) is an adequate solution for exception-handling. Nevertheless, it introduces a simplified form of compound events to solve the "non-atomic termination", so that alternative solutions should be explored.

Further illustration of evidence of the "non-atomic termination" problem has to be provided.

It has been pointed out that there are some relationships between the existing >> and [> operators, the proposed suspend-resume operator, and the proposed generalized termination and enabling operator.

Therefore, it is suitable to find a coherent set of operators in order to avoid redundancy.

7.9 Gate types

Both proposals are quite near and there is a mandate for trying to achieve a common proposal for the next meeting.

7.10 Data types

The LOTOSPHERE proposal (Annexes I and J of the Revised Draft) has been discussed. Interesting ideas appear in this proposal, although its complexity should be reduced. An improved version should be provided for the next version of the Revised Draft.

Two proposals [SOU7] and [SOU9] have been presented and discussed. Their inclusion as annexes of the Revised Draft has been decided.

8 Liaison issues

A response to the [SOU10] document from SC24 has been elaborated and transmitted to SC21.

A joint meeting with WG7 was held on the 26th. Jean-Bernard Stefani presented the basis of the ODP reference model.

The requirements imposed by ODP on a FDT were identified:

- Modelling of objects and dynamic creation
- Modelling of asynchronous dynamic communication patterns, including their creation and destruction
- Time and quality of service

9 Next version of the Revised Draft

The structure of the next version of the Revised Draft has been discussed.

Contributions should be sent to the Editor before the deadline of October, 24.

Annex A (suspend-resume operator) Based on Annex A of Revised Draft on Enhancements to LOTOS.

Annex B (generalized termination and enabling) Based on Annex A of Revised Draft on Enhancements to LOTOS.

Annex C (generalized interrupts) Possible French contribution on this topic.

Annex D (typed tagged gates) merges the existing Annexes C and D of the Revised Draft.

Annex E (time) merges the existing Annexes F and G [SOU5] of the Revised Draft.

Annex F (priorities) based on the existing Annex H of the Revised Draft.

Annex G (data types and modules) based on the existing Annexes I and J of the current Revised Draft.

Annex H (modules) based on the existing Annex K of the Revised Draft.

Annex I (a proposal for data types for E-LOTOS) based on [SOU7].

Annex J (predefined and external data types for E-LOTOS) based on [SOU9].

Annex K (introducing mobility in LOTOS) based on [SOU2].

Annex L (six improvements to the process part of LOTOS) based on [SOU3].