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Informal Ad hoc Expert Group on Conceptual and
Technical Aspects of the Computerization of the TIR Convention
(1-2 September 2003,
agenda item 2 (a))

**INFORMAL AD HOC EXPERT GROUP ON
CONCEPTUAL AND TECHNICAL ASPECTS OF THE
COMPUTERIZATION OF THE TIR PROCEDURE**

Activities of the Expert Group

**Summary report of the special working session of the IT specialists
Geneva, 3 July 2003**

Note by the secretariat

A. BACKGROUND

1. At its second session (14-15 November 2002) the Informal ad hoc Expert Group on Conceptual and Technical Aspects of Computerization of the TIR Procedure (further referred to as “the Expert Group”) discussed at length the conceptual and hierarchical data models, contained in document (ExG/COMP/2002/7), but felt it could not yet reach agreement on any of them. Some experts questioned the usefulness of such complex models, whereas others expressed the view that they were not in a position to judge to what extent the models actually represented the structure of information in the current TIR Carnet. For these reasons, the Expert Group decided to revert to this matter at a later stage and mandated the secretariat to organize a meeting with some IT specialists to

study which model is best suited for the purposes of the Expert Group. The Expert Group pointed out that it only expected the IT specialists to comment on the suitability of the models, knowing that they would not be in a position to judge to what extent the models accurately reflected the structure of information in the TIR Carnet. The Expert Group further welcomed the secretariat's proposal to use in the future the Unified Modelling Language-standard (UML) (ExG/COMP/2002/10, paras. 11-12).

2. Underlying documents contains a summary report of the meeting of IT specialist, which took place on 3 July 2003 in Geneva, for endorsement by the Expert Group. The list of participants is contained in Annex.

B. SUMMARY REPORT

3. The secretariat proposed a work plan dividing the session into three parts:

- A presentation followed by a discussion on the UN/CEFACT Modelling Methodology (UMM), with the aim of assessing its possible use as a methodology for the Computerization of the TIR Procedure;
- A discussion aimed at the selection of the models most suited for the use by the Expert Group. The discussion would be based on the models developed so far (ExG/COMP/2002/6, ExG/COMP/2002/7) as well as on a draft document ExG/COMP/2003/1/draft) prepared by the secretariat, containing the translation of some models developed so far into UML;
- The inclusion of the models in the methodology.

4. In addition to these main points, the secretariat proposed other information points on related issues. The IT specialists welcomed the work plan proposed by the secretariat.

(i) Methodology

5. After an in-depth presentation of document CEFACT/TMWG/N090R8b by Mr. Jean Kubler, the IT specialists welcomed the approach of using a methodology to provide the Computerization of the TIR Procedure project with a standardized framework and stressed that, as a communication tool, it would facilitate the exchange of information among stakeholders. The IT specialists also welcomed the use of a methodology because it clarifies and documents the prerequisites of a computerization project: firstly it is important to know why computerization is required, secondly to know what should be computerized and finally to decide on how computerization should be realized.

6. The IT specialists held an extensive exchange of views on the suitability of the, UML

based, UN/CEFACT Modelling Methodology (UMM) as a methodology to model business processes like the TIR Procedure. As such, UMM provides a procedure for specifying, in an implementation independent manner, business processes involving information exchange. Although the IT specialists noted that it could be worthwhile to study other methodologies they all recognized that the process of selecting a methodology is very complex and time consuming. They agreed that this work had already been done by the UN/CEFACT team in the elaboration of UMM and that UMM offers the necessary tools to describe the TIR business process, a uniform approach for the work of the Expert group and a valuable base for future improvements in the TIR procedure. Seeing that the activities, undertaken by the Expert Group so far, fitted well into UMM, and that the approach endorsed by the Expert Group in the project overview was inline with the UMM, they invited the secretariat to prepare a first draft document for discussion by the Expert Group at its forthcoming meeting. The scope of the first phase of work of the Expert Group being the analysis of the current system - the "as-is" description of the TIR Procedure - the IT specialists decided to limit this first document to the Business Domain Modelling, the first step in UMM. Furthermore, the IT specialists recommended to have a full implementation of the methodology, including a first descriptive part describing the so-called "vision" of the project. Moreover they emphasised the necessity to adapt UMM, as it would be necessary with any other methodology, to the particularities of the TIR Business process.

(ii) Selection of models

7. The IT specialists had an in-depth discussion on the value of models and diagrams for the continuation of the work of the Expert Group. They reviewed all UML models, and finally decided that the set of models proposed in UMM was appropriate. They underlined that this decision was also inline with the approach taken during the first part of the meeting on the full implementation of the methodology. The IT specialists emphasized that the Expert Group's difficulties in understanding the models was mainly due to a lack of textual description. As UMM contains many textual parts, such as the use case descriptions, the requirements lists and the glossary, it will be able to address the problem encountered by the Expert group.

8. Therefore, the IT Specialists recommended not to further use the non-UML models developed so far under the assumption that information contained therein would be included in the UML models used in UMM. However, they did not decide to give up the hierarchical data models, as presented in document ExG/COMP/2002/7, because of the importance attached to them by some of the members of the Expert group. In addition to these conceptual and methodological observations, the IT specialists had some remarks concerning the content of the models, which the secretariat was requested to take on board when drafting its working document, for discussion by the Expert Group at its forthcoming meeting.

(iii) Inclusion of the models in the methodology

9. The IT specialists recommended the inclusion of the use case diagrams, activity diagrams and class diagram drafted by the secretariat in a Business domain modelling document. In addition, in line with UMM, they recommended the secretariat to draft the use case descriptions, the requirements list and a glossary for this forthcoming document. Furthermore, the IT specialists decided to add a detailed descriptions to explain the class diagrams, considered as the most difficult models to understand by non-specialists but having the key role in the static data analysis. Finally, they recommended complementing the document with a technical glossary explaining the symbols used in UML.

10. The IT specialists also called attention to the necessity to further maintain and amend the models in the future.

(iv) Other business

11. The IT specialists were informed that the secretariat is in direct relation with the ISO7273 Maintenance Agency to ensure that the TIR data elements identified by the Expert Group at its Prague meeting, would be harmonized with and/or introduced into the UN Trade Data Elements Directories (UN/TDED). The secretariat would report to the Expert Group at its forthcoming meeting on any progress made in this field.

12. The secretariat informed the meeting of its continued efforts to ensure compatibility of the computerisation of the TIR Procedure project with other projects, already finalized or under development, which could have repercussions on the work of the Expert Group, such as the UNeDocs programme, Asycuda and the New Computerized Transit System (NCTS). The IT specialists took note that the secretariat is in contact with IT specialists in charge of TIR and NCTS related matters at the European Community, in order to coordinate future work.

13. The IT specialists took note of a concise presentation of the UNeDocs programme, in which particular attention was paid to the aspect of how data models, such as the UML Class diagrams, could serve as a basis to easily generate electronic messages or documents (e.g.: XML, UN/EDIFACT and PDF).

ANNEX

LIST OF PARTICIPANTS

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