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Centre for Trade Facilitation and Electronic
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UN/CEFACT PROJECT PROPOSAL

UNeDocs Project (www.unedocs.org)

Note by the secretariat

The document was developed by the Task Force established by the UN/CEFACT Bureau. It was approved by the Bureau the 5th. January 2005

1. OBJECTIVES

UNECE and SITPRO together with supporting organizations have invested significant resources and expertise in the development of the first two phases of the project, namely the proof of concept and the development of version 0.4 of the UNeDocs International Document Set. This proposal is to integrate all the existing project materials into a third phase which will concentrate on extending the scope of documents covered and to ensure convergence between UNeDocs and all related UNCEFACT and OASIS projects.

The overall objective is the development of definitions for international paper trade documents and their equivalent electronic forms.

An original UNCEFACT Plenary decision in May 2002 resolved that UNeDocs should be brought into the Forum under the auspices of ATG as a cross-domain project with the objective of delivering the product to the marketplace. As this decision was never enacted, the Forum Management Group should now resolve to reaffirm the Plenary objective and, as a matter of priority, move the development and delivery of UNeDocs into the policy and executive remit of the UNCEFACT. This approach would strengthen the traditional trade facilitation work within UN/CEFACT and ensure that the significant progress already made on the project is placed into the public domain where UNCEFACT can invite comment and views from potential users and implementers of the UNeDocs toolkit through the Open Development Process.

The purpose of bringing UNeDocs into UNCEFACT is to deliver an internationally agreed simple and low cost answer for the exchange of trade document data based on an integrated approach to the implementation/development of international trade documentary and e-business standards that allows the business community to use both paper documents and their electronic equivalents to generate and transfer trade data throughout the international supply chain.

For the past few years the business community has been looking to UNCEFACT to provide the international standard that will combine paper documents and their mapping to electronic equivalents using appropriate technologies.. UNeDocs has the potential to deliver this standard and to allow business to accumulate benefits in the faster and more accurate processing of trade related information, the reduction of administrative burdens and significant cost savings. In turn this will encourage more traders, especially from the SME sector and the developing countries to enter the global marketplace and contribute to economic development and wealth creation.

Extra impetus has been added with the recent publication of UN/CEFACT Recommendation 33 – Establishing a Single Window. UNeDocs could provide the tools and methodologies needed for the quick, efficient and cost effective implementation of the Single Window concept in countries at all stages of economic development. The Single Window, based on the paper and electronic document standards in UNeDocs, would potentially offer similar benefits to government as the direct application of the standard by business. Given this situation, UNeDocs must be developed by the stakeholders of trade documents and then delivered in the varied and various syntaxes by the technical implementers. The only place this development and delivery can effectively take place is UNCEFACT and UNeDocs should join the ‘family’

of standards to secure that the valuable work started can continue (reference Appendix - Background).

1.1 Purpose

To a) strengthen the traditional trade facilitation agenda within UN/CEFACT by applying a holistic approach to trade documents, based on the coordination of Trade Facilitation and eBusiness layers and to b) enable the development of simple low-cost solutions to support the generation and exchange of standardised paper and/or electronic international trade documents by implementing existing standards and recommendations.

1.2 Scope

Two key aspects of the scope of this project will be to develop an international trade data model, based on the implementation of CCTS/ISO 15000 Part 5 and revision 2004 of UNTDED/ISO 7372, from which document data models can be derived which provide the ability to move between paper and digital documents at any point in the international trade transaction and which maximize semantic interoperability. These two vital objectives can only be achieved by means of a close co-operation between trade document users and system designers and implementers.

2. DELIVERABLES

A set of deliverables will be developed for the production of paper and digital document specifications comprising:

- A Process Model illustrating where the UNeDocs documents (see Note 1 below) fit into the operation of the International Supply Chain based on the UNCEFACT International Supply Chain Reference Model.
- An ISO 15000 Part 5 compliant Common Data Model based on candidate or published UNCEFACT Core Components (see Note 2 below) that are linked to the UNTDED/ISO 7372 (see Note 3 below) showing the relationships between key Business Entities referred to across the UNeDocs documents.
- For each document (see Note 1 below) the project will develop:
 - A class diagram
 - The layout of the document based on the UN Layout Key
 - Box Completion Guidelines
 - XML specifications (i.e. schema, stylesheet)
 - UN/EDIFACT message implementation guide

Note 1: The initial scope of the project is an initial set of twelve documents including key commercial, transport and customs documents, as shown in the table below:

UNeDocs	UN/CEFACT DE 1001 Document codes
Quotation	310
Order	220

Export Cargo Shipping Instructions (ECSI)	340
Freight Forwarding Instructions (FFI)	610
Consignment Document Despatch Notice	N/A
Non-Negotiable Sea Waybill	712
Non-Negotiable IMMTA	N/A
Negotiable IMMTA	N/A
CMR (Road Consignment note)	730
Certificate Of Origin	861
Export Customs Declaration	830
Invoice	380

Note 2: The UNeDocs candidate Core Components linked with UNTDED/ISO 7372 which have been developed in conjunction with TBG3 and which will be submitted to TBG for harmonisation and for future inclusion in the UN/CEFACT CC Library as ratified UN/CEFACT ACCs..

Note 3: During the previous stages of the project the UNECE UNeDocs project team has submitted amendments and additional data element requests forward to the ISO Technical Committee (TC154) that are now included in the revised edition, UNTDED/ISO 7372 2004 which is due for official ratification by end 2004.

Note 4: The paper document layouts, the UN/EDIFACT message implementation guidelines and the XML specification are linked through the Common Data Model. This allows applications to transform a generic UNeDocs XML document into a UNeDocs paper document etc.

Note 5: This work will require an efficient maintenance process based on appropriate tools.

3. FUNCTIONAL EXPERTISE OF MEMBERSHIP

The impact of UNeDocs should reach far beyond UN/CEFACT and constitutes one of the Centre's major future deliverables in the area of trade facilitation. UNeDocs is a holistic approach to international trade documents, based on the coordination of the Trade Facilitation and E-Business layers. As a UN/CEFACT project, UNeDocs impacts ISO TC 154, ISO 15000 Part 5 and on many of the groups in the Forum, as a consequence of which, it is proposed that the UNeDocs project will be considered as an FMG project, as opposed to being attributed to any one particular Permanent Group.

3.1 UNeDocs Stakeholder Group

The commitment and sustained support by UNeDocs major stakeholders will be essential to the success of the project. To this end a Stakeholder Group, composed of trade policy experts and representatives from the business community, transport, banking and finance, customs and other government agencies, and trade service providers will be set up.

UNECE, through UN/CEFACT will therefore convene a Stakeholder Group which should formulate its needs, agree on documentary requirements and coordinate the implementation of the documents standard provided by the project working group.

Further research should be undertaken to identify other organisations, internal and external to the UN that could provide valuable contributions to the strategic direction and tactical work programme of the project.

3.2 UNeDocs Working Group

It is proposed is that a UNeDocs Working Group (eDWG) should be formed with a broad range of new membership and membership from Forum Permanent Groups and stakeholders to ensure that the deliverables derived from UNeDocs obtain the widest possible level of acceptance and thereby achieve the delivery of a UN/CEFACT eDocument standard which would be meaningful yet simple, practical, and cost effective for all users.

The Chairman of the eDWG should be appointed by the FMG and the UNECE Secretariat should propose the secretary/editor of the project. A call to participate in the eDWG should then be launched within the Forum, and, in addition, at organisations involved in developing digital trading and international standards including the existing UNeDocs stakeholders, UN/CEFACT Member States, and the European Commission, ISO TC 154, OASIS, ASEAL (the Asia Europe Alliance for Paperless Trading of EDIFRANCE, DAKOSY AG - Germany, KTNET - Korea and SITPRO -UK) and the Pan Asia Alliance for e-Commerce, UN/ECE secretariat . Other identified potential candidates for membership include ICC (for business); for transport, IATA, IMO, ICAO, IRU, CIM, the owners of the modal conventions for the movement of dangerous goods and IMMTA; for the banking sector, SWIFT; for governments, the WCO, and finally for the service providers, FIATA, IFIA and TIACA.

All participating experts are expected to contribute to the work based solely on their expertise and to comply with the UN/CEFACT Code of Ethics.

4. GEOGRAPHICAL FOCUS

The focus is national and international increased cross-border and cross-sector trade facilitation.

5. INITIAL INPUTS

- All UNeDocs project deliverables and artifacts to date
- UNCEFACT International Trade Reference Model
- UNTDED (ISO 7372 2004 version)
- CCTS (ISO 15000 Part 5) and the UNCEFACT Core Component Library
- UNECE Recommendations, particularly Rec. 1 (UNLK)
- UNTDID and OASIS/UNCEFACT XML Naming and Design Rules
- OASIS UBL schemas and UBL/UNeDocs document formattingspecifications

6. STATEMENT OF RESOURCE REQUIREMENTS

This project requires leadership by a Stakeholder Group, composed of trade policy makers familiar with documentary aspects of trade and trade facilitation, to formulate the documentary requirements which will be implemented by e-business experts through document data models and syntax implementations.

The implementation of UNeDocs documentary requirements by e-business experts also requires resources, expertise and inputs from all Permanent groups of the UN/CEFACT Forum.

UNeDocs development requires specialised competence in the areas of documentary aspects of international trade and transport, trade facilitation and data management. In particular, requirements include EDIFACT and XML syntax expertise, XML programming and understanding of the use of sophisticated UML business process and CCTS data modeling tools.

To ensure commitment and sustained support by the Stakeholder Group, UNECE recommends that UN/CEFACT provides a platform where these Stakeholders can participate in formulating their needs, document requirements and coordinating the implementation of the documents provided by the Forum.

UNECE and SITPRO plus other supporting organizations have already invested significant resources and expertise into the development of UNeDocs to date. The effective integration of UNeDocs into UNCEFACT is dependent on the organization of the maintenance and publication process, commitments and allocation of resources to deliver the next phases of the project according to an agreed work plan.

The team which will lead the new UNeDocs project consists of:

- **Joint project Team Leads - Michael Dill (DE), Sue Probert (GB)**
- **Technical Editor - Jean McInerney (GB)**
- **Secretary and Liaison to the UNeDocs Stakeholder Group - Markus Pikart (UNECE).**

APPENDIX: BACKGROUND

Over the past 30 years the UN, through its Recommendation No 1 - the Layout Key for Trade Documents (UNLK) - has offered an international standard for the accurate and precise transfer of trade data using paper documents. The enduring beauty of the UNLK is simplicity, the same data is found in the same place on all forms aligned to the standard. This simple rule makes trade documents easier to prepare for traders, saving time and money especially if the documents are printed using laser printer technology. For recipients of aligned documents, the forms are easier to check and process as the information is presented in a clearly recognised standard format. An additional benefit for governments is that easy to prepare, user-friendly official documents aligned to the standard can encourage trader compliance with regulations and administrative procedures. Using aligned document standards means official information is generated and provided as part of the trader's commercial system and records with the minimum of additional burdens.

Now the UN stands on the threshold of delivering the next major step forward in trade facilitation for preparing and presenting trade related data. The development of UNeDocs, the electronic versions of aligned documents, will modernise the information flows in the international supply chain. Traders want it to meet the business needs of extended (and often more complex) production and supply chains, and the ever changing demands of customers for the quicker, more certain delivery of goods. Governments need it to encourage greater compliance with official requirements, and to receive trade related data as early as possible to apply risk assessment techniques for more effective controls, especially in the more security focused trading environment.

The origin of the development of the UNeDocs project by the secretariat can be traced back to a seminal document by J. Raven – WP.4, EDI and International trade Facilitation, TRADE/WP.4/R.1025, 3 February 1994. In the section on 'The unfinished agenda', page 4, he notes:

'One aspect of the overall facilitation response was to underline the fact that nothing – goods or means of transport – could move faster than the information which controlled it. The realisation of this constraint led to a mounting WP.4 interest and activity in electronic data interchange... It is not surprising, in the light of these interacting influences, that the working party had no time to extend and promote its basic documentary "products" ...Aligned Documentary System: A further item on the unfinished agenda is the full maintenance and promotion of the UN aligned documentary system. With all its other distractions the WP.4 has had no opportunity, in the last decade to assess the quality, scope or performance of this basic ECE achievement. It has never examined the implications for aligned documentation of the remarkable history of the ECE Single Administrative Document. It has neither monitored nor maintained the fundamental correspondence between EDIFACT and the aligned system'. In 1999, having identified the potential offered by the Internet technology for trade documents, UNECE provided UN/CEFACT with a contribution on 'Electronic commerce on the web – from paper to EDI to XML'. At that time UN/CEFACT's priority was to work with OASIS on the ebXML initiative and it had no available resources to address the proposals made in this document.

As a result in 2000, UNECE started a project based on the following objectives:

- To address the Unfinished Agenda of the UN Aligned Trade Document System;
- To implement existing standards and recommendations for the simplification of document based information flows;

- To develop the equivalence of paper documents and their electronic forms to enable the migration to paperless supply-chains;
- To ensure the availability of solutions accessible to SMEs, developing and transition economies based widely available and low cost software platforms;

Based on these considerations, the UNECE secretariat undertook a number of consultations with organizations (such as TC 154, FIATA etc) and universities to identify the potential and interest in re-assessing the unfinished agenda. This led to the cooperation between UNECE, GEFEG, EPFL and SECO to do the proof of concept for one FIATA document, using extra budgetary resources and contributions in kind.

Since 1998 SITPRO had been independently working in the UK on a parallel project called ElecTra (Electronic equivalent documents to support UK export traders) with similar, but national objectives.

In 2000 a Memorandum of Understanding was signed between SITPRO and the UNECE Secretariat to combine these two projects. The result was the establishment of the current UNeDocs project which is run jointly and supported by UNECE and SITPRO in coordination with a Stakeholder Group. The objectives of this new phase have been to develop business process and data models based on the UNCEFACT Trade Reference Model to support key international trade processes. In addition twelve key documents were chosen for which document data models should be defined plus syntax implementations/mappings to UNLK, UNEDIFACT and XML. In addition to an international set of these deliverables (the 'International Document Set' www.unedocs.org), SITPRO has also been developing a UK implementation version of the resulting toolkit of specifications.

A recent UNeDocs.UK project development undertaken by SITPRO in conjunction with GEFEG has been the migration of the original UNeDocs data models to become CCTS compliant and the adoption of the ATG2 XSD Naming and Design Rules for automatic CCTS-based XML schema generation.

UNECE to date has published a set of core UNeDocs international trade documents (IDS) and SITPRO has published a UK implementation of IDS. These publications contain the business process and data models, the paper form layouts, the box completion guidelines for the paper document, corresponding UNEDIFACT message implementation guidelines and specifications to implement the documents in XML syntax.

To maintain and publish all these specifications, UNeDocs uses an advanced UML and data modelling tool (EDIFIX v5.0). The resulting standard is published in a technology neutral format (MS Word, PDF, XML and HTML) on the Internet: www.unedocs.org