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Reports from experts

Template for UN/FLUX Implementation document

Summary

In line with its Programme of Work (ECE/TRADE/C/CEFACT/2018/22), the United Nations Economic Commission for Europe (UNECE) Team of Specialists on Sustainable Fisheries engages technical monitoring, assessment and advice (Working Area 2) to facilitate and support the development and implementation of fishery data standards at a technical level. This document provides a template for the United Nations Fisheries Language for Universal eXchange (UN/FLUX) Implementation document.

Document ToSSF/2019/INF.6 is submitted to the second session of the Team of Specialists on Sustainable Fisheries for discussion.

I. Background

1. In line with its Programme of Work (ECE/TRADE/C/CEFACT/2018/22), the United Nations Economic Commission for Europe's (UNECE) Team of Specialists on Sustainable Fisheries (ToS on SF) engages in technical monitoring, assessment and advice (Working Area 2) to facilitate and support the development and implementation of fishery data standards at a technical level.
2. The purpose of this document is to provide a high-level explanation of the need and content of the implementation documents. The annexed template of the implementation document can be reused by any country or organisation wishing to implement the UN/FLUX standard.

II. UN/FLUX Implementation documents

3. The high-level aim of the implementation document is to set the rules on how the standard is used between the data senders and receivers. It can be specific for each situation, but still, use the same standard as a data exchange format. It can be used regionally between many actors (i.e. at the RFMO level between contracting parties) or bilaterally for any agreement between two or more parties exchanging fisheries data.
4. The Annex to this document proposes a content template, which can be used to develop the implementation document for any UN/FLUX standard implementation and any party.
5. Some examples of already implemented UN/FLUX Implementation documents (and other relevant information) in the European Union context are available on the CIRCABC site: <https://circabc.europa.eu/w/browse/9f30b099-5d1b-4983-9983-6527fcc0905b> (folder CircaBC / MARE / IFDM DEL / Library / Business Layer / FLUX-P1000).

Annex
Template of the UN/FLUX Implementation document (v. 0.2)

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1. INTRODUCTION

This chapter should contain:

- a brief overview of the business need for this document;
- information on which UN/FLUX standard or domain is described and implemented in this document;
- information on the sender of the UN/FLUX message;
- information on the receiver of the UN/FLUX message;
- the method of exchange of UN/FLUX messages.

2. GLOSSARY

This chapter explains or defines all the abbreviations and specific terminology used in the document.

For example,

BRS	Business Requirements Specification
UN/FLUX	United Nations Fisheries Language for Universal eXchange
RFMO	Regional Fisheries Management Organisation
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
XML	eXtensible Markup Language
XSD	XML Schema Definition

3. LEGAL BASIS

This chapter should provide all the details on the legal basis on which the data exchange will be based.

4. REFERENCES

This chapter should provide a list and brief explanation of any other existing documents or technical information, which would be relevant and necessary for the correct implementation of the UN/FLUX standard.

For example:

- References to existing UN/FLUX documents (i.e. FLUX BRS: P1000 – 1; General principles document).
- References to the XSDs used in this document (i.e. FLUXResponseMessage_8p0.xsd);

- List of code lists or their references;
- Any other information.

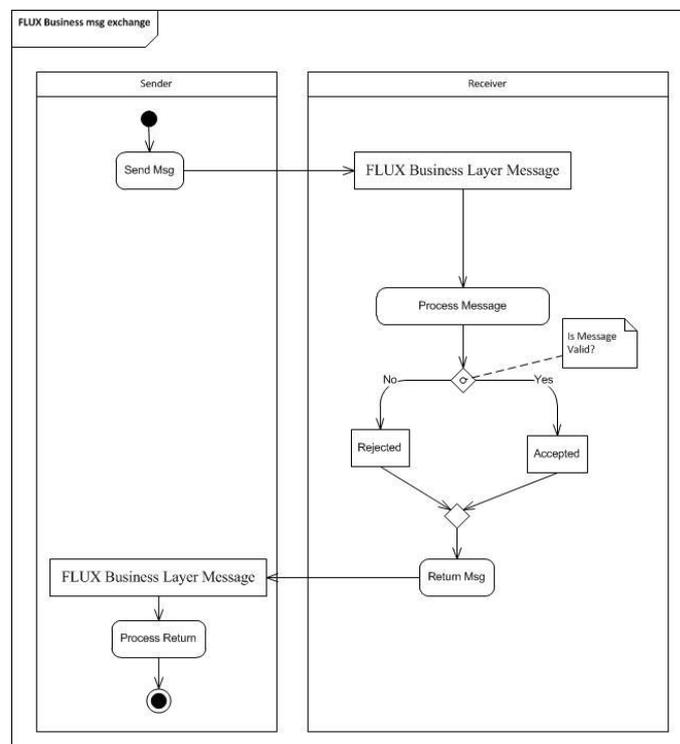
5. SCOPE

This chapter should provide information on the scope of the business case which is implemented by this document. It could also specify situations which are in or out of the scope of this UN/FLUX implementation.

6. PROCEDURES

This chapter should provide detailed information on the workflow of the data exchange. It should describe every step or procedure in the workflow – how messages are sent, received, validated and replied.

It is recommended to include both the activity diagram of the procedure along with high-level details.



Specific business scenarios of data exchanges should be described and diagrammed here. For example, how messages can be corrected, the message validation procedure, etc.

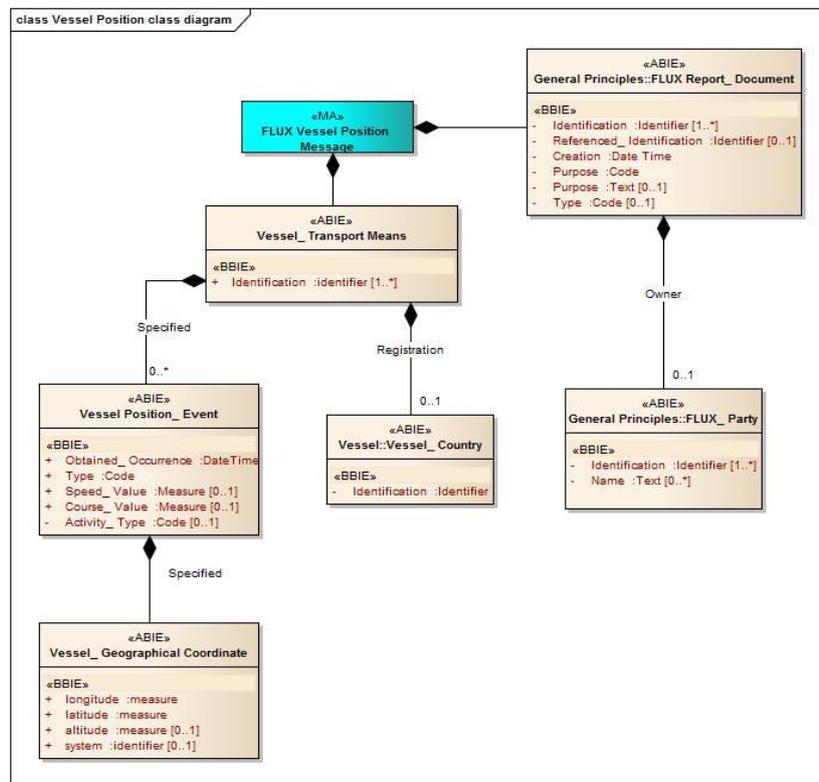
7. DATA MODEL (XSD) IMPLEMENTATION

This chapter should provide all the necessary business and technical information on how the UN/FLUX standard is to be implemented and describe the expected content of the message.

The description of the general constraints at the level of XSD Element attributes could also be given. For example:

- (1) the *listID* or *schemeID* attributes required for Code and Identifier Data Type elements;
- (2) the required DateTime format;
- (3) the required Measure and Quantity data type format.

The chapter could be supplemented by a graphical data model. For example:



Further details on each field defined in the UN/FLUX standard data model (XSD) must be described. They could be presented in the form of the table and structured per each entity of the data model.

The table shows an example of the common entities used in all UN/FLUX standards.

7.1.1. General Principles: UN/FLUX Report Document

Entity/Field Name	Business Name	Type	Cardinality		Description	Remarks
			min	max		
ID	Message identifier	Identifier	1	1	The Global Unique Identifier of the UN/FLUX FLAP Message	A GUID as defined in the RFC 4122 Cf. http://www.guidgenerator.com to generate an example of a valid identifier.
ReferencedID	Referenced message identifier	Identifier	0	1	The identifier of a referenced UN/FLUX Message	A GUID as defined in the RFC 4122. A GUID number, of the message, for which a specific action is needed.
CreationDate Time	Creation	DateTime	1	1	The date time UTC value, according to ISO 8601 format, of the creation of this UN/FLUX Message document.	A UTC date time according to ISO 8601 format; e.g. 2008-10-31T15:07:38Z (milliseconds could also be provided).
PurposeCode	Purpose code	Code	1	1	The code specifying the purpose of this UN/FLUX Message.	Use code list (<i>listID</i> =FLUX_PURPOSE). Reference: EDIFACT Code List 1225 (qDT UN02000125 - Message Function Code).
Purpose	Purpose text	Text	0	1	The purpose, expressed as text, of this UN/FLUX Message.	Free text that can be used to communicate the reason for sending the message.

Column descriptions:

- ✓ Entity / field Name. It is the exact name of the entity or data field as in the standard;
- ✓ Business Name. Information on the data element in business terminology.
- ✓ Type. Information on Data Type expected in the message.

- ✓ Cardinality. Information whether the data element is mandatory or optional, shall it be one instance or it can be repetitive?
- ✓ Description. A brief explanation (definition) of the data element.
- ✓ Remarks. Any additional important information on the data element.

8. BUSINESS RULES

This chapter should describe the validation process in more detail and could contain the list of business rules (BR) applied by data sender, data receiver or any other party or system analysing the UN/FLUX messages exchanged.

The table presented in this chapter is an example and must be read as follows:

- BR-ID: this is the number of the business rule. It should be unique within a certain context (data exchange, system, database, etc.);
- Entity: the entity in the UN/FLUX data model;
- Attribute: the attribute(s) name(s) of the entity used by the BR;
- BR description: brief explanation on the rule;
- E/W: error or warning (in case of an error, it normally means that message is not successfully validated);
- Note: Any relevant information to clarify the BR.

BR-ID	Entity/Attribute	BR description	E/W	Note
FLUX-0000	UN/FLUX message	Validation of whether or not the message is in a valid XML format	E	
FLUX-0001	UN/FLUX message	Verify if all mandatory data fields, according to XSD definition, are present	E	
FLUX-0002	UN/FLUX message	Verify if all mandatory data fields follow the format according to XSD definition	E	
FLUX-0003	UN/FLUX Report Document / ID	The identifier must be present.	E	
FLUX-0004	UN/FLUX Report Document / ID	The identifier must be in a valid UUID format.	W	
FLUX-0005	UN/FLUX Report Document / Referenced ID	ReferencedID must refer to the message received earlier	E	
FLUX-0006	UN/FLUX Report Document / Creation Date Time	Value is a valid datetime and follows ISO 8601 format (yyyy-mm-dd).	E	

BR-ID	Entity/Attribute	BR description	E/W	Note
FLUX-0007	UN/FLUX Report Document / Creation Date Time	Verify if CreationDateTime is not in future.	W	
FLUX-0008	FLUX Report Document / Purpose Code	PurposeCode is mandatory.	E	
FLUX-0009	FLUX Report Document / Purpose Code	Value provided must be a part of 'FLUX_GP_PURPOSE' code list	E	
FLUX-0009	FLUX Report Document / Purpose Text	Text length is limited to 100 characters	E	

9. XML EXAMPLES

It is recommended to provide several examples of the UN/FLUX messages. If they are too big for the display, the reference where these could be found should be provided.

For example,

```

</rsm:FLUXReportDocument>
<rsm:VesselEvent>
  <ram:TypeCode listID="VESSEL_EVENT">MOD</ram:TypeCode>
  <ram:OccurrenceDateTime>
    <udt:DateTime>2015-03-27T00:00:00Z</udt:DateTime>
  </ram:OccurrenceDateTime>
  <ram:RelatedVesselTransportMeans>
    <ram:ID schemelID="CFR">BEL000021964</ram:ID>
    <ram:ID schemelID="EXT_MARK">O.2</ram:ID>
    <ram:ID schemelID="IRCS">OPAB</ram:ID>
    <ram:ID schemelID="REG_NBR">002</ram:ID>
    <ram:ID schemelID="MMSI">123456789</ram:ID>
    <ram:ID schemelID="UVI">1234567</ram:ID>
    <ram:Name>MIKE MICHEL JR</ram:Name>
    <ram:TypeCode listID="VESSEL_TYPE">FX</ram:TypeCode>
    <ram:RegistrationVesselCountry>
      <ram:ID schemelID="TERRITORY">BEL</ram:ID>
    </ram:RegistrationVesselCountry>
    <ram:SpecifiedRegistrationEvent>
      <ram:RelatedRegistrationLocation>
        <ram:ID schemelID="VESSEL_PORT">OOSTE</ram:ID>
        <ram:TypeCode listID="FLUX_VESSEL_REGSTR_TYPE">PORT</ram:TypeCode>
      </ram:RelatedRegistrationLocation>
    </ram:SpecifiedRegistrationEvent>
  </ram:RelatedVesselTransportMeans>
</rsm:VesselEvent>

```

10. CODE LISTS

The use of commonly understandable code lists is crucial. In this chapter any important information about the code lists should be described:

- code list names to be used in messages;

- where code lists can be found;
- etc.

11. DOCUMENT VERSIONING

It is recommended to maintain a record in the document of the changes made between versions.

Version	Author	Date
0.1	Author of the document version	DD/MM/YYYY
Notes	A brief description of changes the from the previous version	

12. CONTACT

Information on the contact points for any questions regarding this document and the data exchange implementation in general should be included here. It is recommended to provide different contacts for business related questions and for technical questions.
