

Review on NTS-documentation Report



Composer
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Versie- en Configuratiebeheer

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1 Assignment

1.1 Context

Since a number of years Europe has been working on optimizing the information exchange within the inland navigation. Seen the international character of the inland navigation, standardization is an essential condition. River Information Services (RIS) is the name of this European cooperation in the information exchange area for navigation. The standard "Notices to Skippers" (NTS) is part of RIS.

The Dutch RIZA (Institute for Inland Water Management and Waste Water Treatment) has implemented the NTS-standard and uses the "BC2000" information system to register and dispatch their notices to skippers.

At the consultation of this documentation, preliminary research "Implementation RIS-index in BC2000", done by LogicaCMG, has shown that the documentation contains inconsistencies.

1.2 Project aim

LogicaCMG has been requested to verify the documents on inconsistencies and imperfections, including the implementation of the accepted change requests, if relevant, in the documentation.

1.3 Contextual notes

The English documentation has been included in this research. The verification of the translations into the other languages is left to the parties concerned of the member states.

2 Research

2.1 Sources

The sources have been downloaded from the NTS Expert Group website, <http://www.risexpertgroups.org/index3.html>.

- Leaflet
- Encoding Guide
- International Standard for Notices to Skippers (Edition 1.2 final CCNR)
- Reference tables 2.3 (draft)
- XML Scheme 2.7 (XSD) (draft)
- XML Definition (versie from the Encoding Guide has been used)
- Requests for Change (CR001 t/m CR010)

2.2 Approach

Reviewing has consisted in:

1. Collecting the latest versions of the documentation
2. Verifying the implementation of all accepted Change Requests (CR's)
3. Verifying whether all Reference Tables and Codetables match in the XML Scheme
4. Verifying whether the XML Scheme and XML Definition are in concordance.
5. Verifying whether information has been documented redundantly in the various sources and, if so, are they in accordance with each other?
6. Record the results. The findings are indicated in the various documents with a red (corrections) and green (change requests) color.

3 Existing Change Requests

Some inconsistencies found have already been addressed in the Change Requests presented to the NTS Expert Group.

These change requests are discussed here, to be able to refer to them later on in this document.

3.1 CR 001: Changes in Reference tables (Tags)

This change request has not yet been implemented in "Reference tables 2.3" (draft).

3.2 CR 002: Changes in XML scheme (limitation_period)

This CR has been implemented in "XML Scheme 2.7" (XSD) (draft).

3.3 CR 003: Changes in XML scheme (geo_object)

This CR concerns/ contains two changes in "XML Scheme 2.7"(XSD) (draft).
The first (element "id" may appear 1x or 2x) has been implemented.
The second (element "name" may appear 1x) has NOT been implemented.

3.4 CR 004: Corrections in the XML definition

Change in paragraph 2.5 has been implemented.
Changes in paragraphs 4.3.3 to 4.3.6 have been implemented.

Change in paragraph 3.3 has not been implemented.

3.5 CR 005: Changes in XML scheme in ice_condition_code

This change request has been implemented in "XML Scheme 2.7"(XSD) (draft).

3.6 CR 006: Changes in Reference Tables "XML tags"

This change request has been implemented in "Reference tables 2.3 (draft).

This change request has not been implemented in "International Standard for Notices to Skippers (Edition 1.2 final CCNR)"

3.7 CR 007: Changes in Reference Tables "Gauges"

This change request has been implemented in "Reference tables 2.3"(draft).

3.8 CR 008: Changes in the XML Definition

This change request has not been implemented in "International Standard For Notices To Skippers". Not in the "Edition 1.2 (final CCNR)", nor in the "Edition 080606" (ongoing approval procedure at EC).

3.9 CR 009: Amendment in the reference table reason_code

This change request has been implemented in "XML Scheme 2.7" (XSD) (draft)

This change request has been implemented in "Reference tables 2.3" (draft)

This change request has not been implemented in "International Standard for Notices to Skippers (Edition 1.2 final CCNR)"

3.10 CR 010: Amendment of additional languages in the reference tables, correction of country name

This change request has been implemented in "XML Scheme 2.7" (XSD) (draft)

This change request has been implemented in "Reference tables 2.3" (draft)

This change request has not been implemented in "International Standard for Notices to Skippers (Edition 1.2 final CCNR)"

4 International Standard for Notices To Skippers

The most important document is the "International Standard For Notices To Skippers, edition 1.2 (final CCNR)". This document contains all NTS information.

Analysis of the previous chapter learns that change requests proposed and accepted have not yet been implemented in this document. The recommendation will be to compose this document again based on the sources mentioned and the individual parts will be addressed here.

4.1 XML Definition

The following inconsistencies in the "XML Definition" have been found:

4.1.1 Section 2.11.1.4

Two coordinates have to be added by a *fairway_section - geo_object*. However this is not compelled in the "XML Specification" (XSD), because the *geo_object* is also used in other situations (see section 2.12, 3.2 and 4.2.1).

The proposal is to add an extra constraint tot the XML Definition. See the first proposed change request.

4.1.2 Section 2.12.1.4

One coordinate should be added to a *object - geo_object*. However this is not compelled in the "XML Specification" (XSD), because the *geo_object* is also used in other situations (see section 2.11, 3.2 and 4.2.1).

The proposal is to add an extra constraint tot the XML Definition. See the first proposed change request.

4.1.3 Section 4.2.1.4

2 coordinates have to be added by a *fairway_section - geo_object*. However this is not compelled in the "XML Specification" (XSD), because the *geo_object* is also used in other situations (see sections 2.11, 2.12, 3.2).

The proposal is to add an extra constraint tot the XML Definition. See the first proposed change request.

4.1.4 Section 2.11.2.3

In the column "Description", the standard value is said to be "ALL". The code list contains only 2 letter codes. The standard value according to "XML Specification" is "AL".

The proposal is to adjust this description. See the second proposed change request.

4.1.5 Section 2.12.3.3

In the column "Description", the standard value is said to be "ALL". The code list contains only 2 letter codes. The standard value according to "XML Specification" is "AL".

The proposal is to adjust this description. See the second proposed change request.

4.1.6 Section 2.12.1.3

In the column "Description" it is not mentioned that the default value is "FWY".

The proposal is to adjust this description. See the third proposed change request.

4.1.7 Section 2.11.2.6

A limitation type knows an *indication_code*. This has disappeared in the "XML Definition". The proposal is to correct this error. See the seventh proposed change request.

4.1.8 Section 3.4

If a Water Related Message (*wrm*) is to be meaningful, it should contain a value. In the "XML Definition" is not stated which elements in which situations are mandatory.

Depending on the value of the "measure_code", one of the following three elements are mandatory: *value*, *barrage_code*, *regime_code*. The following table can be used:

measure_code	mandatory element
DIS	value
REG	regime_code
BAR	barrage_code
VER	value
LSD	value
WAL	value

The entry for "value" is not mandatory in all cases, although it is stated that way in the "XML Scheme 2.7" (XSD) (draft) and in the "XML Definition".

The proposal is to consider this element "Conditional". In the "XML Definition" a rule should be made which makes the entries, according to above mentioned table, mandatory. See the fourth proposed change request.

4.1.9 Section 4.3.6

In the "Tag" column there is an example of an possible value. Although an "A" value has been given to an *ice_situation_code*, according to the reference table this is not a valid value.

The proposal is to make a small change and to use "NOL" as an example. See the fifth proposed change request.

4.2 Reference Tables

4.2.1 Ice_situation_code

In this table the codes in the first column are in small letters. In all other tables, the codes are in capitals. The codes in the XML Scheme are also in capitals.

The proposal is to enlist these codes in capitals in the reference table. See the sixth proposed change request.

5 Corrections

This chapter contains the changes in the NTS documentation not in need of a separate change request.

5.1 NTS, edition 1.2 final CCNR

In the "International Standard for Notices to Skippers (Edition 1.2, final CCNR)", all other documents have been implemented. In this documents changes are requested which should also be implemented here.

The change requests and corrections related to this information are not mentioned separately in this report. A new composition of such an overall document, based on the corrected and changed sources, should be made afterwards.

The corrected and bases source documents have been appended to this report. In these documents all the proposed corrections and changes have been highlighted in the text.

5.2 CR001

Implement the changed translations of "*indication_code*", "*ice_condition*" and "*ice_condition_code*".

5.3 CR003

In the "XML Scheme 2.7" the element "name", within "*geo_object*" contains another attribute "Max Occurs=2". This should be removed.

5.4 CR004

In the "XML Definition", paragraph 3.3, the tag "*reference_code*" still states "Mandatory". This should be changed to "Conditional".

5.5 CR008

In the "XML Definition", paragraph 4.2 has not yet been extended with a "limitation" section. Supplement rule number 7 has also not been specified. The scheme should be extended here.

6 Proposed change requests

To propose change requests within the Expert Group NTS, a form is available, which can be used to specify the change requests.

In this chapter a change request in this format has been added for each inconsistency found.

6.1 Number of coordinates for each geo_object

Expert group: Notices to Skippers Supplying country: Netherlands	CR Number: NL-CRxx1 CR Type: Version:
Short description: Number of coordinates for each geo_object	
Description of Change : The geo_object type is used in four different situations. In each situation, the geo_object has it's own specific number of coordinate sub-tags. In the XML Scheme it's free to use either one (1) or two (2) coordinates. In fact, the following rules are applicable: 2.11: ftm/fairway_section/geo_object/coordinate: 2x 2.12: ftm/object/geo_object/coordinate: 1x 3.2: wrm/geo_object/coordinate: 1x or 2x 4.2.1: icem/fairway_section/geo_object/coordinate: 2x To be added: Rule 8 (sections 2.11 and 4.2.1): "a fairwaysection always has 2 coordinates (begin and end coordinates)" Rule 9 (section 2.12): "an object always has 1 coordinate" Rule 10 (section 3.2): "a wrm geo_object has 2 coordinate in case the type_code is FWY, otherwise only 1 coordinateis to be used."	
Reasons for Change: Missing explicit guideline for constructing NTS messages	

6.2 Default value position_code

Expert group: Notices to Skippers Supplying country: Netherlands	CR Number: NL-CRxx2 CR Type: Version:
Short description: Default value position_code	
Description of Change : Amendment of the XML Definition of position_code in section 2.11.2.3 and 2.12.3.3 Change the default value in the description from "ALL" to "AL". Reason: In these sections 2 position codes are used with a default value of "AL" (see reference table and XML Scheme).	
Reasons for Change: Compliance of the XML scheme and the XML definition	

6.3 Default value type_code

Expert group: Notices to Skippers Supplying country: Netherlands	CR Number: NL-CRxx3 CR Type: Version:
Short description: Default value type_code	
Description of Change : Amendment on the XML Definition section 2.12.1.3 "type_code". Add "default value FWY" to the description of section 2.12.1.3.	
Reasons for Change: Compliance of the XML scheme and the XML definition	

6.4 Conditional value

Expert group: Notices to Skippers Supplying country: Netherlands	CR Number: NL-CRxx4 CR Type: Version:
Short description: Conditional values in water related message	
Description of Change : <p>Section 3.4.3 has rule 6 applicable. This is not correct. The case is that this field is mandatory, depending on the value of the measure_code.</p> <p>Also the values in sections 3.4.5 (barrage_code) and 3.4.6 (regime_code) are mandatory, depending this value of the measure_code.</p> <p>Change in "XML Definition"</p> <p>Section 3.4.3: Change in the column "Mandatory/Conditional" from M to C. The column "Rule Applicable" contains rule 11 wich says "Mandatory if measure_code is either "DIS", "VER", "LSD" or "WAL".</p> <p>Section 3.4.5: Change in the colomn "Rule Applicable". This column contains rule 12 wich says "Mandatory if measure code is "BAR"</p> <p>Section 3.4.6: Change in the column "Rule Applicable". This column contains rule 13 wich says "Mandatory if measure code = "REG"</p> <p>Change in the "XML Scheme in measure</p> <p>Add attribute minOccurs="0" to the value element in the measure type.</p> <pre><xs:complexType name="measure"> <xs:sequence> <xs:element name="value" type="xs:float" minOccurs="0" /></pre>	
Reasons for Change: Missing explicit guideline for constructing NTS messages.	

6.5 Correction in XML Definition ice_situation_code

Expert group: Notices to Skippers Supplying country: Netherlands	CR Number: NL-CRxx5 CR Type: Version:
Short description: Correction in XML Definition ice_situation_code	
Description of Change : Change the tag-example in ice_situation_code from <ice_situation_code>A</ice_situation_code> to <ice_situation_code>NOL</ice_situation_code> Reason: A is not a valid ice_situation_code. Better is to choose a code from the reference table, e.g. NOL	
Reasons for Change: Correction	

6.6 Use upper-case code names

Expert group: Notices to Skippers Supplying country: Netherlands	CR Number: NL-CRxx6 CR Type: Version:
Short description: Use upper-case code names	
Description of Change : Change the code names in the reference table for "ice_situation" in upper-case. Reason: The code names in the XML Scheme are written in upper-case, all the other code names in the Reference tables are written in upper-case.	
Reasons for Change: Correction	

6.7 Correction of missing tag "indication_code"

Expert group: Notices to Skippers Supplying country: Netherlands	CR Number: NL-CRxx7 CR Type: Version:
Short description: Correction of missing tag "indication_code"	
Description of Change : In the XML Message Specification in the Encoding Guide is line 2.11.2.6 with tag "indication_code" missing. To correct this error this line has to be added again with the following column values. Nr.: 2.11.2.6 Tag: <indication_code>MAX</indication_code> Meaning of tag: Indication of type of value Description: Indication of the type of value (select a code from the reference table) Mandatory/Conditional: C	
Reasons for Change: Correction	