Best Practices for NIPWG Product Creation

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OVERVIEW

- Initial ideas for best practices discussion(s) in NIPWG
  - Scope
  - Currently available guidance for data creation
    - S-131 Edition 1.0.0 DCEG contains guidance on data creation
  - Topics
    - Common topics
    - Product-specific topics
  - Organization and venue(s)
  - Expected products of “best practices” discussions
- Next steps

SCOPE

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- What is the scope of the discussion of best practices?
- Products covered by these discussions:
  - S-122 (MPA); S-123 (MRS); S-127 (MTM); S-128 (CNP); S-131 (MHI)
  - Interaction with and input from S-124, S-125 and S-129?
- Other aspects of scope?
  - What should be included as “best practices for data creation”?
  - What belongs elsewhere?

CURRENT GUIDANCE

- Data capture guidance is provided in relevant sections of S-131:
  - DCEG 2.5.5 - Use of various associations
  - DCEG 10 - Textual regulations and notes
  - DCEG 12.4 Production strategies (below)

12.4 Production hints and recommended practices (informative)

12.4.1 Capturing the application of a regulation, recommendation, etc. to specified kinds of vessels

Encoders may find it easiest to capture the application of a regulation (recommendation , etc.) to a class or set of vessels in three phases:

(1) Encode the operative part of the regulation (the part that describes what the vessels subject to the regulation must or must not do), creating an instance of **Regulation** (or **Recommendation**, etc., as appropriate). Descriptions of what kinds of vessels are subject to the regulation must be excluded from the content of the **Regulation** instance.

(2) Create an **Applicability** information type and encode the description of what kinds of vessels are subject to (or exempted from) the regulation.

(3) Link the two using an **InclusionType** with *membership=included* if the vessels described by **Applicability** are subject to the regulation, or *membership=excluded* if they are explicitly exempted from the regulation.

It is not necessary to create separate instances of the regulation for inclusion and exclusion.

12.4.2 Capturing the permissibility or otherwise of a geographic feature for specified kinds of vessels

Encoders may find it easiest to capture the permissibility of a feature to specified kinds of vessels in three phases.

(1) Create the geographic feature if it does not already exist.

(2) Create an **Applicability** information type and encode the description of what kinds of vessels are required to use the geographic feature.

(3) Link the two using a **PemissionType** with *categoryOfRelationship = required*.

For the other relationships (prohibited, not recommended, etc.) steps 2 and 3 should be modified accordingly (i.e., if use by certain kinds of vessels is "not recommended" encode the description of that kind of vessels in an Applicability and create a linking **PermissionType** with *categoryOfRelationship = not recommended*).

It is not necessary to create a separate instance of the geographic feature for each type of relationship.

12.4.3 Constructing the Applicability information type

Where the source material describes complex conditions, encoders may find it useful to write out the conditions in structured language with grouping parentheses, for example, as *"(condition A) AND (condition B) AND (condition C)"*, or draw diagrams, before encoding **Applicability** and its associations.

Note that the model limitation on mixing logical connectives means some forms of conditions which use "nesting" cannot be encoded in a single **Applicability** instance and multiple instances must be created.

EXAMPLE: The complex condition "(condition A) AND ((condition B) OR (condition C))" must be encoded as two **Applicability** instances, one with "(condition A) AND (condition B)" and the other with "(condition A) AND (condition C)".

Table 12.2 - Example of conversion of complex condition to multiple simple conditions

Complex condition	Encode as
(condition A) AND ((condition B) OR (condition C))	Applicability 1: (condition A) AND (condition B) Applicability 2: (condition A) AND (condition C)

Data producers may contact NIPWG with questions about encoding complex conditions.

As a last resort, conditions may be written as phrases in natural language and encoded in the *information* attribute. It is acceptable for an **Applicability** to have only the *information* attribute populated.

IHO

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TOPICS

- Sources of information for different data products
- Conversion of textual information and the object-attribute model
  - Regulations (similarly “recommendations”, “restrictions”)
  - Nautical information not classified as regulations, restrictions, or recommendations
- Data conversion recommendations in S-131
- Sourcing or creation of spatial primitives for NPUBS-specific geographic features
- Meta-features and quality information
- Data conversion methods
  - “Manual” conversion methods – tools, interfaces
  - Automated and semi-automated methods
- Experience reports and sample datasets from product development efforts by NIPWG members (and non-members).

IHO VENUES

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- Organizational structure of discussion – product specific task groups, common task group, NIPWG as a whole?
- NIPWG Wiki support for discussion
  - Table of products on “Main page” now has a new column “Best practices for data production” with links to Wiki pages for individual products.
  - Internal structure on each “best practices” page, and additional pages will be added as needed.
  - Structure, contents and additional pages for individual products up to individual product task groups to determine.
  - Consideration of common “best practices” page for common questions?
  - Wiki: http://wp12183585.server-he.de/npubwiki/wiki/index.php/Main_Page

PRODUCTS

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- What are the expected products of the “best practices” discussions?
  - Common material for DCEGs?
  - “Live” best practices summarization and techniquest on Wiki?
  - Papers at NIPWG meetings?
  - Other products?

NEXT STEPS

- Identify an initial set of topics for “best practice” discussions (both common and product-specific topics).
  - Can be revised as needed
- Organizational structure
- Review current guidance
  - S-131 includes both production guidance (S-131 DCEG) and interface concepts (Production Specification, clause 11).
  - Other current guidance?
- Time frames