International Hydrographic Organization



S-100 Geospatial Information Registry Brief



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Activities of the IHO GI Registry

- Statistics:
 - Total number of items = 6886
 - Features (Geo/Meta) = 969
 - Information = 22
 - Simple Attributes = **1020**
 - Enumerates = **4478**
 - Complex Attributes = **191**
 - Codelists = **21**
 - Codelist Values = 185
 - Portrayal Items = 664

Feature Concept Dictionary Register according to S-100									
No.	Туре	Valid	Superseded	Retired					
1	Feature Type	<u>334</u>	<u>308</u>	<u>288</u>					
2	Information Type	<u>20</u>	<u>1</u>	0					
3	Simple Attribute Type	<u>580</u>	<u>279</u>	<u>158</u>					
4	Enumerated Type	<u>3396</u>	<u>751</u>	325					
5	Complex Attribute Type	85	<u>66</u>	<u>40</u>					
6	Code List Type	<u>9</u>	1	<u>11</u>					
7	Code List Value Type	<u>84</u>	2	<u>99</u>					

Portrayal Register										
No.	Туре	Valid	Superseded	Retired						
1	Symbol	<u>582</u>	0	0						
2	Line Style	55	0	0						
3	Area Fill	<u>26</u>	0	0						
4	Font	<u>4</u>	0	0						

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- FCD Register:
 - Valid items = **4557**
 - Superseded items = 1408
 - Retired items = **921**
- Principle activity align Register content with Data Models for S-100 based Product Specifications



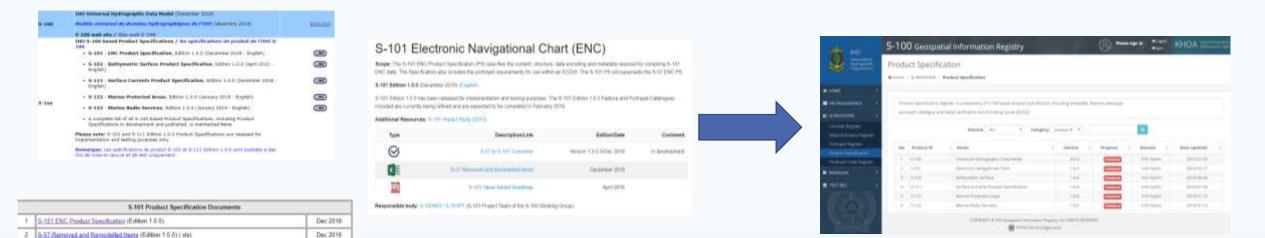
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FCD Register

Activities of the IHO GI Registry

- "Beta" Registry:
 - Portrayal, Producer Code and Product Specification Registers now "live"
 - All links on IHO web site to published IHO S-100 based PSs now point to the Product Specification Register

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GI Registry Workshop - Aims

- Understanding current structure of the IHO GI Registry
- Understanding current structure of the "new" IHO GI Registry
- Discuss possible improvements to the "new" Registry structure
- Understanding the GI Registry Interface
- Advance development of "conventions and guidelines" for the IHO GI Registry
 - Rationalization of Registry content
 - Discuss (and agree?) on possible new data modelling concepts for the Registry (for example utilization of concept specializations (URNs, Namespaces))
- Introduction to Registry associated tools
 - Feature Catalogue Builder
 - Portrayal Catalogue Builder





Welcome to the 5/100 Geropatal Information Report (Version 2,1)

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- Domains: How many is too many?
 - Need to define what a "Domain" is
- Roles:
 - RM assessment process authentication of applicants
- Domain Control Body importance
 - Membership having the "right people" high level guidance in the Conventions and Guidelines
- Structure:
 - "Codelist Register" rework of this concept required develop for submission at TSM Sept 2019



- Structure:
 - Discussion on rationale behind the introduction of the Concept Register and relationship to the DD Register
 - Register once use many times





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- Content:
 - Initially a rigid structure for content to be further evaluated as rationalization of data content takes place for migration to the "Beta" Registry Concept Register.
 - Can superseded items continued to be used when a New Edition of a Product Specification is developed?
 - Portrayal Register: Conflicts in ECDIS evaluation process for new proposed symbols – needs a knowledge of interoperable products (ECDIS, back of bridge,)
 - For ECDIS what products are intended to be used??
 - DD Register: Assignment of different Types to the same concept within a single Product Specification?



- Content:
 - Item metadata:
 - Alpha Code: Retain for historical purposes, however should not be able to be populated for proposals
 - Use Type: Not required at the Concept Register level but required at the DD Register level
 - INT1 and S-4 references: Only relevant for a relatively small number of items. Retain? Implement at DD Register (Domain) level only?
 - Change "Distinguishing Features" to "Distinctions"
 - Mechanism to query the status of registered items used in Product Specifications
 - Tool to check the validity of a Feature/Portrayal Catalogue against the contents of the Registry



- S-99 Annex A:
 - Critical requirement for rationalization of current FCD Register content

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- S-99 Annex A:
 - Agreement of the Workshop of fundamental conventions
 - Language (English)
 - Syntax (allowable characters, upper case, name structure,)
 - camelCase convention for Concept Register
 - Consistency between item name and camelCase
 - Naming for "coded" list values
 - Use of Definition Source
 - Content of Remarks

concept should be able to be used in a Product Specification using the registered Item Name, without a requirement to propose an alternate "secondary" name (or alias - see clause X X).

- The name must be concise. Every effort must be taken to avoid being too descriptive when selecting an item
 name. This supports the intended generic nature of the name as described in the above bullet.
- Where a concept can be considered to be a "sub-classification" of a particular "theme", the term identifying the "theme" should be the first part of the item Name. For instance, "buoys" and "beacons" have been used as "themes" in the Concept Register, resulting in all registered items that are part of these "themes" beginning with the word "Buoy" (for example Buoy Cardinal") or "Beacon" (for example "Beacon Isolated Danger").
- Similar to the above, descriptive terms (for instance "direction of"; "size of") should not be used at the start of an item name.
- Only alphanumeric characters (A-Z; a-z; 0-9) and the special characters and "____" are allowable for Concept Register item names. All other characters are prohibited. [What about accented letters? Lexical level??]
- All names must have each word included in the name commencing with an upper case character A-Z. [What about prepositions "of" etc? is there an ISO convention for this?]
- Unless generally internationally accepted as such (for instance, if a non-English term is the internationally recognized term used; or the term is an internationally recognized name in a national language), a non-English term cannot be used as the item Name for a concept.
- In relation to the above point, however, the units of measure for the "physical characteristic" must not be
 included in the item name. This is to allow application across Domains where different units of measurement
 may be used. The units of measurement should either be included as part of the metadata for the dataset or
 encoded in the Feature Catalogue (that is, specified at the Product Specification) or modelled as an
 attribute bound to an application of the concept in the modelling (that is at the Feature Data Dictionary level).
- Category of and "Value of". Need to define the conventions for naming these concepts in the Concept Register – either Category of Value of or ____Category/. Value.
- Note inconsistencies in the FCD where in some cases the number is used and in others the spelling of the number is used. Requires a convention.
- Use of acronyms in names? There should not be a combination of both acronym and full term in an Item Name. The best known term should be used as the Item name with the alternative listed as an Alias. For instance, Item Name = LANBY, Alias = Large Automatic Navigational Buoy.



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- Documentation:
 - Review S-100 Part 2 (including Parts 2a and 2b)
 - S-99 (S-100WG2 Action 25)
 - S-99 Annex A

GIRegPT



GIRegPT - Members

Jeff Wootton (IHO Sec – Lead)

- Al Armstrong (NGA and S-101PT)
- Yong Baek (KHOA and Registry Development Team)
- Hillary Fort (NOAA and WMO (Weather))
- Denise LaDue (USACE and IEHG)
- Raphael Malyankar (Portolan Sciences)
- Eivind Mong (Canadian Coast Guard, NIPWG,)
- Briana Sullivan (UNH and NIPWG)



Action Requested of S-100WG

- Note this Report
- Endorse the approval of the fundamental Registry content conventions so as to allow for the commencement of FCD Register content retionalization.



Questions?



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