



9th Test Strategy Meeting

Progress status of S-100 Infra-system

Agenda Item 8.1

7 - 10 March 2023 / Seoul, Republic of Korea



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S-100 INFRA SYSTEM

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- S-100 GI Registry
- S-100 FCB
- S-100 PCB
- DCEG Composer
- IC editor
- Point Symbol editor
- Line and Pattern Symbol editor



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S-100 GI REGISTRY

International Hydrographic Organization

- Items applied in the S-100 Registry
 - Apply the proposal process of Concept/Data Dictionary Register
 - Introduce revised S100_CD_Information class
 - Add 15 portrayal type like Display Mode, Display Plan (Part 9-13.3.15)
 - Registration and management of UOM (Unit Of Measure) and Constraints

Management of UOM

- Items that require updating
 - Add portrayal Item Type (Part 9-13.3.23 to 9-13.3.27)
 - Amend Multiplicity of Alias

[Attribute] Dictionary Details	
Domain	Inland ENC
Name	Name of Sounding Datum Reference Level
Case name	nameOfSoundingDatumReferenceLevel
Item identifier	356 ?
Definition	Name of the water level depth values are referred to.
Data type	text
	Input data following data type
	Length
	Pattern
Additional Data	Structure Specification
	Format Minutes per cubic Metre
	Definition (The meaning is determined by its associated quantities.)
	Symbol min/m³
Reference	Edition 2.4 Feature Catalogue
Reference Source	Electronic Chart Display and Information System for Inland Navigation, Section 2: Data Standard, Appen
Similarity to Source	Identical : The style of the definition has been changed to match the style and structure of other specifi
Remarks	
INT1	<input type="text"/>
S4	<input type="text"/>



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S-100 GI REGISTRY

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- Planned other enhancements to the S-100 Registry
 - Registration and management of Association and Role
 - Managing details of Submitting Organization, DCB and Domain
 - Management of Codelist Register
 - Unification of individual DB connection functions such as S-100 Tool-Kit into an integrated API



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FEATURE CATALOGUE BUILDER

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- Main changes in the FC data model of S-100 5.0
 - Add Product ID
 - Change of binding of Feature type and Information type from 1 to 1~*
 - Change of namespace used in FC
 - Update of FC XML Schema
- S-100 FCB
 - S-100 FCB 2.3.2 → S-100 FCB 2.4.0 (Editing S-100 4.0 based FC and converting to S-100 5.0.0 based FC)
 - S-100 FCB 2.3.2 → S-100 FCB 3.0.0 (Editing S-100 5.0.0 based FC)
- Maintenance of S-100 FCB
 - Support for S-100 4.0.0 is to be maintained until the end of 2023
 - completed the development of FCB 2.4.0 and FCB 3.0.0 and updated S-100 Toolkits (in line with S-100 5.0.0 to support S-101 FC 1.1.0)



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FEATURE CATALOGUE BUILDER

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- **Planned update in 2023**
 - **Synchronization with Registry**
 - Definition and code of FDD Register
 - **Setting the directory of schema file**
 - Available for latest schema file
 - **Identification of unreferenced items**
 - Unverifiable and unreferenced items through schema checking
 - **Improvement of editing existing FC**
 - Binding deletion function
 - Minimize manual editing
 - **Interface for editing Association**
 - Add an interface for editing (Currently only additions or initializations are possible)
 - Addition of multiple cases in one Association (Currently one case available)



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PORTRAYAL CATALOGUE BUILDER

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- Future direction
 - PCB is developed and changed to a tool that can create PC catalogue by registering manually edited Rules.
 - functions to include Alert & Indication catalogue
 - Tool for the production and management of PC catalogue
- Planned update
 - Use of items in the Portrayal register
 - Validation check using the S-100 5.0 schema
 - Visualization of PC
 - Point, Line, Pattern symbol, Connection with the KHOA S-100 Viewer
 - Improved system stability
 - Resolve the case of shutdown due to system error



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DCEG COMPOSER

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- Purpose
 - Supports DCEG production by configuring DCEG basic templates using S-10X FC and inputting remarks for each feature type and information type
 - Closely related to the FC data structure
- Planned update
 - Binding structure change of Feature and Information type
 - Support S-100 5.0 based FC
 - Function to save as AsciiDoc type



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OTHER TOOLS

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- IC Editor
 - First released
 - Support the S-100 5.0.0 and S-98 1.0.0
- Symbol editor
 - Function to edit metadata
 - Use of color profile from GI Registry
 - Support the SVG schema of S-100 5.0.0
 - No significant changes in the symbol parts
 - Improvement of stability and errors
- Line and Pattern symbol editor
 - Line symbol editor (First released)
 - Pattern symbol editor (New development)



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UPDATE PLAN OF S-100 INFRA-SYSTEM

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- Update schedule

Num	S-100 Infra-system	Update plan of S-100 5.0
1	S-100 GI Registry	2023, update to include requirements of S-100 5.0
2	Feature Catalogue Builder	2023, Update the tools working the S-101 FC
3	Portrayal Catalogue Builder	2023~2024, Creation of PC catalogue and validation check
4	DCEG Composer	2023, update in line with S-100 5.0.0
5	Symbol editor (Point/Line/Pattern)	2023~2024, Update SVG editing functions
6	IC Editor	2023~2024, First release in 2023 and improved in 2024



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UPDATE PLAN OF S-100 INFRA-SYSTEM

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- S-100 Tools

Priority	S-100 Tools	Update schedule in 2023
1	Feature Catalogue Builder	Task : Management, User feedback and improvement Period : during 2023
2	DCEG Composer	Task : FC Model, Feature/Information Association Period : Updated until June, Management from feedback
3	Portrayal Catalogue Builder	Task : Revision of interface to create PC package and Validation Period : Updated until September, Report to S-100WG8
4	IC Editor	Task : Stabilize and used to update IC Period : Updated until September, Report to S-100WG8
5	Symbol editor (Point/Line/Pattern)	Task : update Point/Line editor, new development Pattern editor Period : Improve until October, Report to S-100WG8



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USER FEEDBACK

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- Case of Point symbol editor
 - S-101 PorSub used and provided feedback
 - Point symbol editor was updated and stabilized
 - Need a social platform to receive user feedbacks
- Platform options
 - IHO Github
 - KHOA Github used to download the KHOA Viewer