



# **S-100 Validation Tests sub group**

**S-129 VTC**

30<sup>th</sup> April 2024



# IHO **AGENDA**

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- S-100 Validation
- Status on tasks
- Next steps
- How does this impact S-129?



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# S-100 VALIDATION – WHAT IS IT?

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S-100 Validation GitHub page

<https://github.com/iho-ohi/S-100-Validation-Checks>

Sub group was formed in December 2022

Goal: To produce S-100 Framework level tests by HSSC 17 (2025)

## Scope:

- Validation tests are product neutral and can be run against any relevant Product Specification (PS) without modification
- Not all S-100 validation tests will apply to all datasets e.g. S-100 Part 10c (HDF5) is not relevant for S-101
- Encompasses all elements of the S-100 Framework
  - Datasets
  - Feature Catalogues
  - Portrayal Catalogues
  - Interoperability Catalogue
  - Registry
- Aim to reduce repetition in PS – should only contain tests that are unique to that PS e.g. when enumerate allowable at S-100 level is constrained by the PS
- Initially focused on ECDIS products/services



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# CROSS PRODUCT VALIDATION/ SUITABILITY

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- Certain product datasets are designed to be interoperable
  - Need new level of validation checks to ensure datasets are safe to use together
  - Initially looking at Water Level Adjustment (WLA)
- Currently possible to have S-101 and S-102 datasets that pass both S-100 Validation and their own PS checks and not be safe to use together
  - e.g. different vertical datums, S-102 may contain a shoaler depth than S-101
- At S-100 WG 8 (2023) S-100 Validation & S-98/S-164 sub groups have been tasked to complete an initial list of checks
- Overlap with S-98 and S-164 Test Data Sets
  - Work closely together



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# STANDARDISED TEMPLATE & NAMING CONVENTION

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- It was reported to S-100 WG8 that there were different formats & naming conventions in PS validation checks
- Proposed to have a standardized format
  - Agreed to standardize the first 5/6 columns, allows PC to have some flexibility
  - S-100 Val sub group to distribute a format for approval (not completed)
- Naming convention
  - All Check IDs will follow format S129\_0001
  - Only use numerical Check IDs



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# S-158 – S-100 VALIDATION

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- At S-100 WG8 it was agreed that the S-100 Validation checks will be held in S-158

## Proposal to HSSC 16 for approval

- Will include annexes for validation checks for individual S-100 PS
  - This allows us to continually update individual annexes without needing to continuously update S-158 editions
- Each part will be maintained by their respective group/PT and will have its own HSSC / IHO MS approval process
- Only first two numbers of PS need to match S-158

- Proposed S-158 Structure
  - Split into individual parts that are managed as separate specifications
    - S-158 Introduction and Structure
    - S-158:100 ed 1.0.0
    - S-158:98 ed 1.0.0
    - S-158:101 ed 1.0.0
    - S-158:102
    - S-158:104
    - S-158:111
    - Etc



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# STATUS ON S-100 VALIDATION CHECKS

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- Currently have 362 checks
  - In the process of reviewing them – many may be deleted or combined
- Initial tests Part 1, Part 2, Part 4b, Part 5, Part 6, Part 7(not finished), Part 10a (not finished), Part 10c, Part 17
  - Part 1 checks from S-101 PT (Validation) have been incorporated, primarily 10a
  - 15 (Data Protection) & 16 (Interoperability Catalogue Model) allocated
  - 18 (Language Packs), 10b (GML Encoding) and 9 (Portrayal) next priorities
- No further progress in writing new checks since S-100 WG8, looking into funding options
- Cross product validation checks, looking into funding options

[https://github.com/iho-ohi/S-100-Validation-Checks/blob/main/Documents/S100ValidationTests\\_4.xlsx](https://github.com/iho-ohi/S-100-Validation-Checks/blob/main/Documents/S100ValidationTests_4.xlsx)

<https://github.com/iho-ohi/S-100-Validation-Checks/issues>

README

## S-100-Validation-Checks

S-100 Github repository for Validation Check development.

S-100 Validation Tests - DRAFT. Last updated 15/04/24.

Part	DEV ID	Check ID	Description	Classification	S-100 Part	S-100 Clause
1	S100_Dev0001		The basic data type must be one of the supported category types.		1	4.5
1	S100_Dev0002		The Derived Type must be one of the types defined in S-100 or in the Product Specification		1	4.6
1	S100_Dev0003		The Enumeration Type must be part of the valid identifiers in the Enumerated Type Declaration		1	4.7
1	S100_Dev0004		The Codelist Type declaration must be one of the types defined		1	4.8
2	S100_Dev0005		A Product Specification for the dataset has been registered in the IHO GI Registry		2	4.2.1
2	S100_Dev0006		The features in the Feature Catalogue must be registered in the Concept Register and Data Dictionary Register		2	4.2.1
2	S100_Dev0007		The producer code is registered in the Producer Code Register			
2	S100_Dev0008		The Portrayal Catalogue is registered in the Registry, if required for the product			



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## NEXT STEPS

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- Continue producing a set of tests from Parts of S-100
  - Tabulate and place on GitHub
  - S-100 Validation sub group to review and comment
  - Looking into funding options
- Finalise and circulate naming convention and validation test structure
- Coordinate Cross-Product Validation with S-98/S-164 lead, DQWG and S-1xx PS owners
- Document write up with an initial explanation of 'what is S-100 level validation'





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# HOW DOES THIS IMPACT S-129

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- Validation tests
  - Continue to complete, should only be S-129 specific
  - Check the S-100 Validation Checks to see if there are duplicates between your checks, if so remove from S-129 checks
  - If you have identified checks that are needed at an S-100 level or for Cross Product Validation that are not covered then e-mail Liz Hahessy [elihh@gst.dk](mailto:elihh@gst.dk) or raise an issue on GitHub <https://github.com/iho-ohi/S-100-Validation-Checks/issues>
- Adopt new naming convention & structure (when delivered)
- Be aware that proposal is that PS Validation Checks will be moved to an annex of S-158 (when approved)



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Any Questions?