



S-100 Validation Tests sub group

11th VTC Meeting

15th January 2025



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MEETING PROTOCOL

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Meeting participants are kindly requested to note the following meeting protocols;

- Please keep your camera and microphone turned “**off**” if you are not talking or presenting
- If you want to make an intervention, **please turn your camera and microphone on and, raise your hand** to indicate that you wish to speak
- Don’t forget to turn your microphone “**on**” before speaking, and “**off**” when finished
- Please use the “**Chat**” function to communicate an text information to the meeting
- If you have any problems connecting using Firefox or other browser – please try using Chrome.



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AGENDA

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- Feedback from S-100 WG 9
- Status on S-158:100 & S-158:98, out for comment until 15th January
- Status of cross product validation VTCs
- Classification of validation checks
- Review of feedback received so far
- Next steps



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S-100 WG 9 FEEDBACK

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- Held 2 hour session
- Discussed the issues highlighted at October 24 VTC and asked for approval on these items
- General discussions throughout the week regarding Data Quality and Data Validation Checks
 - Data Quality – how verify the content (verification)
 - Data Validation Check – how check the dataset will work (validate)



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S-100 WG 9 FEEDBACK – 15 DECISIONS/ACTIONS

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Data Quality

Decision 9/01: Agree to leave the DQ Measures in the check template but make it optional



S-100 ValSG lead to invite **DQWG Chair** elaborating a use case the DQ column in the validation checks.

DQWG Chair had provided significant feedback asking for Validation checks to be reorganised by DQ Measures – will not implement and retain existing structure



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S-100 WG 9 ACTION/DECISIONS

Check Classification

Decision 9/02: Agreed to use Check Classification for conformity with other standards

Decision 9/09: Agreed to use the S-58 Classifications for now as it is and Liz/Jeff to amend the S-58 wording for S-158:100

- Jeff has provided rewording to make descriptions less ENC specific

Question over non-nav products but Phase 2 issue

Will return to later in VTC

6 Check Classification


The check classification is intended to ensure that published S-100 based data products are free of errors which would affect the use of the product in an end-user system such as ECDIS. In some cases it has been necessary to diverge from the strength of wording used in the S-100 Universal Hydrographic Data Model or its derived Product Specifications. In such cases the impact on the user has been the overriding factor for consideration. The classifications have the following meanings:

C	Critical Error	<i>An error which would make a S-100 based dataset unusable in the end-user system through not loading, or causing an end-user system to crash, or presenting data which is unsafe or unintelligible for the intended purpose of the product, for example navigation.</i>
E	Error	<i>An error which may degrade the quality of the S-100 based dataset through appearance or usability but which will not pose a significant danger when used to support the intended purpose of the product.</i>
W	Warning	<i>An error which may be duplication or an inconsistency which will not noticeably degrade the usability of the S-100 based dataset in the end-user system.</i>

At a minimum validation software must group validation reports using these categories. They may also support sub-grouping of related checks such as those relating to geometric validity or attribute consistency. Software may allow checks of type Error or Warning to be deselected completely or by such categories.



Check ID naming convention

- **Decision 9/03:** Agreed to remove the S- in front of the naming convention for CheckID 
 - This will be for all S-158 documents, so PS validation checks as well
- Documentation has been updated
- Dev IDs will stay the same, with the S until removed from S-158

Dev ID	Check ID	Classification	Check Message
S100_Dev0001	100_XXXX	C	Unsupported basic data type
S100_Dev0002	100_XXXX	C	Unsupported derived data type
S100_Dev0003	100_XXXX	C	Unsupported enumeration type
S100_Dev0004	100_XXXX	C	Unsupported codelist declaration



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S-100 WG 9 ACTION/DECISIONS

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Metanorma

- **Decision 9/04:** Noted that S-100WG/Secretariat to discuss use of Metanorma more formally with HSSC.
- Push to move to document creation on Metanorma
- There is never a good time, but there can be a bad time
- Will review after Edition 1.0.0 is published
- S-102 may adopt S-158:102 in Metanorma and then we can use their template



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S-100 WG 9 ACTION/DECISIONS

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Format of checks & documents

Decision 9/05: Agreed that S-158:1xx cover document will be delivered in Word and Validation Checks in Excel to the S-100PS owners. ✓

Decision 9/13: Validation subgroup to submit a paper on possibilities for future storage of validation checks (S-100WG10)

- Will discuss at a later VTC

The template structure was approved



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S-100 WG 9 ACTION/DECISIONS

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Handover

- **Decision 9/06:** Approved the S-158:101 checks and will be sent to HSSC for approval. ✓
 - Accept there will be will potentially be an overlap between S-101 and S-100 validation checks, will likely be new versions very quickly
 - S-158:101 has now been signed off by HSSC CL
- **Decision 9/07:** S-100 Validation Checks subgroup can handover the S-158:1xx checks to the S-100PS owners, who then take on responsibility to update checks. ✓
 - Have been handed over to S-102, S-104, S-111, S-124 & S-129 in Nov/Dec
 - It is PT responsibility to maintain, ensure up to date, remove duplicates with S-100 checks and publish



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S-100 WG 9 ACTION/DECISIONS

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Maintenance

- **Decision 9/08:** Validation Checks subgroup to produce a proposal form (similar to S-100 proposal form) for changing validation checks, to be shared with S-100PS owners
 - Light touch from S-100 validation sub group as is each groups responsibility, but to provide a basic framework
 - Will schedule for work after HSSC



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S-100 WG 9 ACTION/DECISIONS

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Publication of S-158:100 & S-158:98

- **Decision 9/10:** Agreed to publish Edition 1.0 of S-158:100/98 to (Implementation version) HSSC 17
- Draft ready December 2024 ✓
- Final ready February 2025 – working on now
- Submission to HSSC 17 (submit after TSM in March)
- Implementation version means we can make changes up to Edition 2.0.0 within S-100 WG. Expect will publish Edition 2.0.0 quite quickly
- Does mean that the Operational versions of PS will be referring to Implementation versions of S-100 Validation checks
- **Decision 9/11:** Validation subgroup to add wording to S-158:1xx explaining versioning ✓



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S-100 WG 9 ACTION/DECISIONS

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Part 6 - Coordinate Reference Systems

- **Decision 9/12:** agree to remove from S-100 level and to include in S-98 validation checks

S-100 standards vs. dataset checks

- **Decision 9/14:** S-158:100 agreed to use separate sections to register dataset checks and generic standards/framework checks.
- Consider moving standards checks to S-97 in the future.
- Checks now separated into Collection A & Collection B



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CROSS PRODUCT VALIDATION VTCS

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Cross product validation

S-100ValSG with Working Groups & PTs to arrange VTCs for Water Level Adjustment (S-101, S-102 and S104) and in January 2025 for the S-124 and S-129 validation.

S-101, S-102, S-104 & S-111 met 9th December ✓

- Primarily led to changes to S-98 which will then be reflected in the validation checks when the draft is ready
 - No holes (grid square) in S-102 unless the underlying S-101 contains a LNDARE or UNSARE
 - Scale appearance
 - Uncertainty
 - Use of projected/unprojected and mixed projection data

Liz to contact S-129 & S-124 regarding whether a VTC is necessary or whether can be completed by correspondence



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CLASSIFICATION OF VALIDATION CHECKS

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• GitHub Issue #71

MikusRL commented on Dec 10, 2024

Regarding the Classification of the Checks I propose that the checks are defined differently for the S-100 level and any other product specification, as it is seen fit for the PS creator.

For the navigation purposes and ECDIS use case the PSES can use the same approach as before, that the checks are classified as Critical Error/Error/Warning (CE/E/W). I propose to abbreviate the Critical Error as "CE", but would be ok also with just "C".

The proposal for the S-100 level is to have only "Fail/Pass" classification. That to enable it's universality for all existing and upcoming PSES to be able to use it in the most flexible way. At its most the "Fail" classification could be split into "Error" and "Warning", but that potentially could already complicate the checking of any other PSES unnecessarily. And then the PSES can define at their main validation document (S-158:101 for example) whatever the fine tuning of the classifications of "Fail" Errors the PS needs. In the case of PSES used in ECDIS the Validation checking descriptions can then be harmonized to adopt the C/E/W for the "Fail" type from the S-100 level. Other PSES, not necessarily to be used in ECDIS, then could define more Fail types or less - up to the PSES then. So, if the check stated in the S-158:100 is "Fail" then the check can be re-used in the PSES list as well, but the Checks classification could be "adjusted" as deemed necessary - for example defining the "Fail" stated in the S-158:100 as "Warning" only or as "Critical" in the S-158:101. I trust with this approach it would be much easier to finalize the S-100 checks and it's document as we would not need to argue about the "severity" part of the check in S-100 level - just to state if according to the S-100 main standard if it is a "Fail or Pass". The approach is similar what we in S-100 already do with the metadata. S-100 defines the metadata, most of them optional, and the PSES adopt them by refining if they stay optional or should they become mandatory.

Propose:

- Discuss in group if this is something we wish to pursue
- If yes, need to submit a paper to S-100 WG to change (I suggest TSM)
- When could change be applied?
 - Realistically for edition 2.0.0
 - Will need resources to complete the work

Note: we are only looking at ECDIS use products at this stage



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REVIEW OF FEEDBACK RECEIVED SO FAR

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- Received feedback from Australia, Frank Hippmann, Jeff (IHO) & NTOU
- Raphael has continued to work on the checks while on review so have his proposed changes as well



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AUSTRALIA FEEDBACK – S-158:98

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comments and editorial observations

Date:	Document: S158:98 Comments
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1	2	(3)	4	5	(6)	(7)	
Component	CO ¹	Clause No./ Subclause No./ Annex (e.g. 3.1)	Paragraph/ Figure/Table/ Note (e.g. Table 1)	Type of comment ²	Comment (justification for change) by the CO ³	Proposed change by the CO	Secretariat observations on each comment submitted
	AU	4	Table 4-1	te	Phases 2, 4, 5 seem to focus on non-conformances at the Dataset level and not across products. Shouldn't Phase 6 be part of S-158:100??	Review content or improve Descriptions so they focus on the cross-product outputs they aim at checking.	
	AU	Spreadsheet	NA	ed	The vast majority of the tests from S98_Dev1001 to S98_Dev6012 seem to be Product specific and not linked to the interoperability between datasets from.	Move tests to the Product specific S-158:1xx documents	

Proposed responses:

1. TBD after deletion of product-specific checks (see other AU comment). Might leave in table with a remark about there being no checks in the phase. S-98 is still under development and checks might turn up later.
2. Agree to remove product-specific checks



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NEXT STEPS

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- Review and incorporate feedback
- Continue producing a set of tests from Parts of S-100 and cross product checks
- Refining some of the S-100 level checks delivered from S-101 (Part 1)
- Coordinate Cross-Product Validation with S-98/S-164 lead, DQWG and S-1xx PS owners
 - Draft of S-98 due at the end of January
- Second release of S-158:100 & S-158:98 in February
- Incorporate feedback from circulation
- Following TSM in March submit to HSSC 17 via S-100 WG



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NEXT MEETINGS

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S-100 TSM 11, Monaco – 25-28th March

Suggest next VTC meeting is March before TSM



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Any Questions?