



S-101 PT Report to HSSC 16

S-101 PT Chair Tom Richardson

HSSC 16 05.1c

Rev 1 17th April 2024



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S-101 PT MEETINGS

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Meetings held (3)

- S-101PT10 Brest, France, June 23
- S-101PT11 Lombok, Indonesia, Sep 23
- S-101PT12 VTC Feb-Mar 2024

Various meetings of PT sub-groups;
DCEG, Scales, Portrayal, Associations

Meeting planned

- S-101PT13 Sweden, June 2024





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S-101 PT ADMINISTRATION

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- At the PT10 meeting an election of PT officers took place as a result of the 3rd Assembly
 - Thomas Richardson, UK was re-elected as chair
 - Klas Ostergren, SE was elected as vice chair
 - Alvaro Sanchez, AU was re-elected as co-vice chair to provide continuity; Alvaro remains lead of the Portrayal Sub-Group
- Updated S-101 PT TORs were endorsed by S-100WG8



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WORK COMPLETED

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- Publication of S-101 1.1.0 in April 2023 was a major milestone as this included a complete S-101 Portrayal Catalogue
- Significant progress has been made using IHO Special Projects fund support on S-101 Test Datasets. These have been refined and are supporting the development of S-164
- S-101 Edition 1.2.0 was published in March 2024 as an interim step towards Edition 2.0.0; in addition to further modelling improvements Edition 1.2.0 addresses a number of identified Portrayal issues
- An Impact Study has been drafted as requested by the HSSC Chair



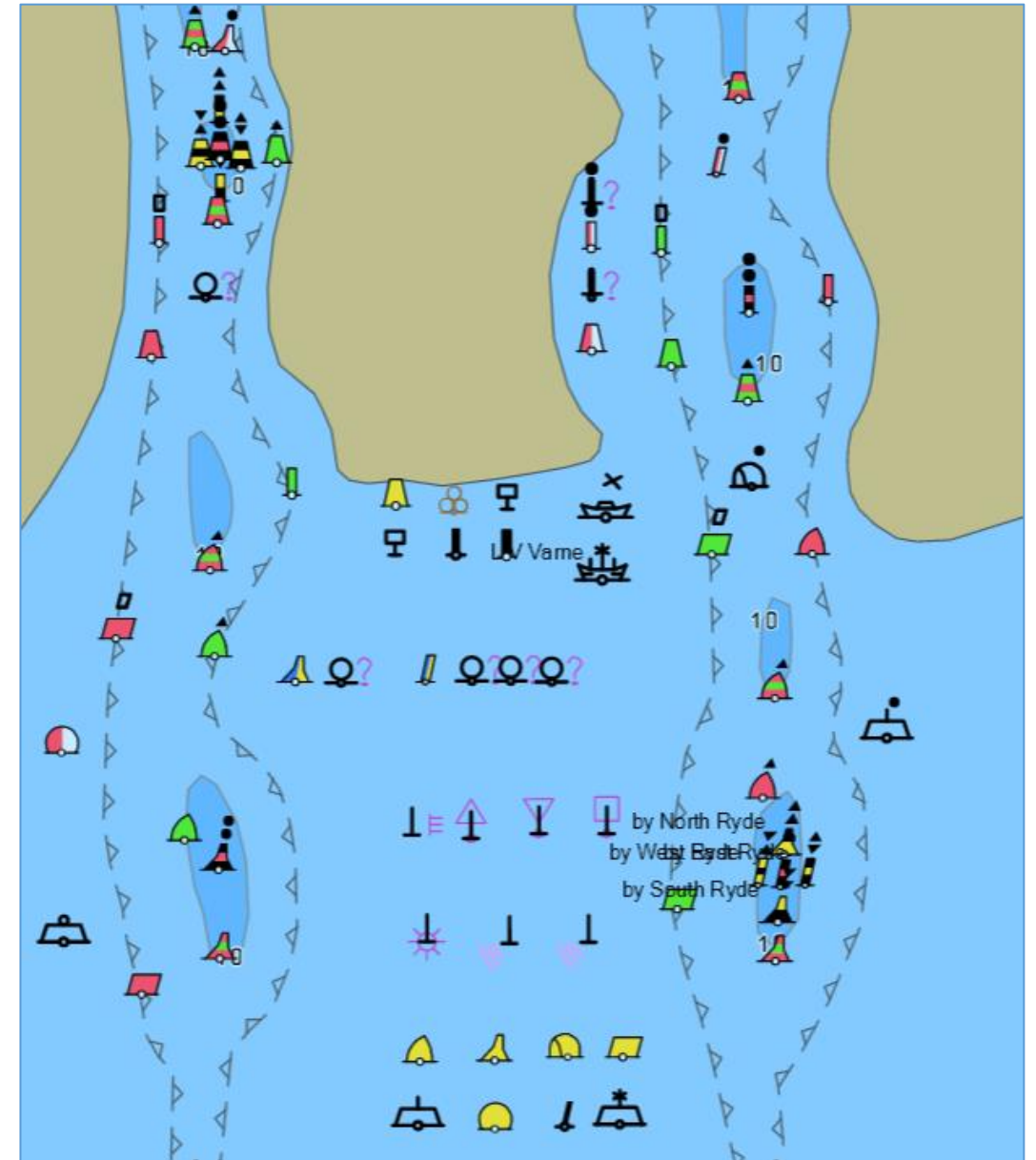
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PORTRAYAL PROGRESS

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This image shows a test dataset for AtoNs presented using new colour filled symbols.

These symbols were agreed for inclusion in S-101 Ed.1.2.0 at S-101PT11.





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SIGNIFICANT DEVELOPMENTS

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- Optimum Display Scale – significant discussion led to agreement at PT12 to retain Optimum Display scale in edition 1.3.0 subject to a final decision at S-101PT13
- Update Information – an alternative approach that could improve the user experience is generally supported but relies on implementation in production software. A final decision is planned at PT13
- Language Support – modelling refined to support use cases raised by some member States provides much greater flexibility than S-57; testing needed to validate this
- Work has begun on how new ECDIS requirements for the application of uncertainty for route planning and monitoring will be applied in S-101; this work is progressing in liaison with ENCWG but is not expected to be completed before Edition 2.0.0 of S-101



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REMAINING WORK

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1. Prepare and finalise edition 2.0.0 of S-101 and submit for approval as per HSSC timeframes (CL 43/2023 refers)
2. Identify and progress post 2.0.0 changes
3. Finalise GI registry content to reflect edition 2.0.0
4. Establish an effective feedback process



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DELIVERY PLAN S-101 2.0.0

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- Conduct a final PT review cycle for comments 12th April to 22nd May
- May 17th S-101 2.0.0 Final Draft prepared and final submission deadline to S-101PT13 for changes to edition 2.0.0
- June 17th – 19th S-101 PT13 Meeting resolves final comments for edition 2.0.0 and considers post 2.0.0 proposals
- July 5th Submit S-101 2.0.0 to S-100WG for approval
- Aug 9th HSSC Approval begins as per [CL 43/2023](#)



S-101 PT 2.0.0 Delivery Plan

Ref	Theme	Task	Lead	Start	End	Status
1	Edition 1.2.0	1.2.0 PC Review	Port SG	21/02/2024	11/03/2024	COMPLETED
2		Prepare FC 1.2.3 addressing issues identified	KHOA	22/02/2024	07/03/2024	COMPLETED
3		Publish final 1.2.0 content and inform S-100WG	Chair	11/03/2024	11/03/2024	COMPLETED
4	Edition 1.3.0	Prepare DCEG and DPS 1.3.0. Submit association and association role names to GI Registry.	JW	08/03/2024	22/03/2024	COMPLETED
5		Prepare a 1.3.0 Feature Catalogue	KHOA	25/03/2024	19/04/2024	IN PROGRESS
6	2.0.0 Prep	Conduct PT Review Cycle	JW	12/04/2024	22/05/2024	PLANNED
7		Verify FC/DCEG	Chair	19/04/2024	03/05/2024	PLANNED
8		Prepare a 1.3.0 Portrayal Catalogue	Port SG	22/03/2024	17/05/2024	PLANNED
9		Prepare a 1.3.0 Validation Checks	Val SG	22/03/2024	17/05/2024	PLANNED
10		Prepare final documents for PT13 (1.4.0)	JW	03/05/2024	17/05/2024	PLANNED
11	Finalise 2.0.0	Hold S-101PT13	Chair	16/06/2024	19/06/2024	PLANNED
12		Prepare final documents draft 2.0.0	JW	20/06/2024	05/07/2024	PLANNED
13		Portrayal edit and make 2.0.0	Port SG	20/06/2024	05/07/2024	PLANNED
14		Validation Checks edit and make 2.0.0	Val SG	20/06/2024	05/07/2024	PLANNED
15		Send to S-100WG for approval	Chair	05/07/2024	05/07/2024	PLANNED
16		Send for DQWG Review	Chair	05/07/2024	05/07/2024	PLANNED



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CHALLENGES (RISK RATING **LOW-MEDIUM-HIGH**)

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- **Resources MEDIUM**

Although capacity has been a challenge funding of work on test data and significant efforts by PT members and expert contributors means that although this remains a risk it is considered that it is manageable for the delivery of edition 2.0.0.

- **Testbeds and Testing HIGH**

The lack of ECDIS testbeds that implement S-100, S-98 and S-57 remain the greatest barrier to success for S-101 as this means that testing has been limited. Even where test and trial data has been produced the extent of testing has been limited. The comprehensive testing of edition 2.0.0 must be a high priority task once published.

- **Dependencies HIGH**

S-101 remains dependent on S-98, S-164 and continued stability of S-100. We also continue to have dependencies on the GI Registry and associated tools (FCB). The recent identification of new ECDIS performance standard requirements is a significant challenge for S-98.



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SYMBOLGY REFRESH

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- The symbols that are currently registered in the Portrayal Register need updating to align with the latest S-100 schemas and to remove content that is no longer permitted in the SVG profile
- University of New Hampshire have kindly supported the PT by developing a software tool to support this
- To avoid time consuming manual effort the PT requests as an exception apply these changes as a bulk update outside of the normal process set out in S-99
- The project team will seek resources to support this work but support from the IHO Special Projects Fund may be needed



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RECOMMENDATIONS

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1. **HSSC** to note the report and endorse the proposed way ahead to deliver 2.0.0

2. **HSSC** to note that a number of aspects of S-101 remain high risk due to the limited availability of testbeds and various dependencies on other standards. It is therefore considered likely that issues with edition 2.0.0 will be identified that may require a revision of S-101 prior to 01 January 2026

3. **HSSC** to confirm whether
 - a) as detailed in the S-101PT TORs this Project Team will disband after the PT13 meeting and a sub-group form under ENCWG at ENCWG9 (2024)
 - b) Continue as a PT until HSSC 17 and transfer to a sub-group of ENCWG at ENCWG11 (2026)
 - c) Continue until HSSC considers the PTs work complete

4. **HSSC** to endorse the proposal to make a bulk update of ENC related symbols in the GI Registry which will not follow the procedures defined in S-99



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QUESTIONS ?