



# **S-101PT5-05 S-101 PT Work Plan**

S-101 PT Chair Thomas RICHARDSON

**S-101PT 15 Sept 2020**



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# BACKGROUND

International  
Hydrographic  
Organization

- The objectives of the S-101 Project Team are as follows\*;
  - i) Develop the S-101 Product Specification to S-100 Readiness Level 4
  - ii) Ensure that S-101 meets the needs for SOLAS navigation
  - iii) Coordinate the development of S-101 Test Data Sets for type approval
  
- The S-101PT TORs also include a draft workplan which includes 3 work items.
  - I. A1 Develop and Finalize Edition 2.0.0 of S-101 ENC Product Specification
  - II. A2 Monitor the implementation of S-101 to S-100 Readiness Level 4
  - III. A3 Review the S-101 Value Added Roadmap annually
  
- This paper presents a work plan for the Project Team to deliver an S-101 1.1.0 during 2021

\*From the S-101 PT TORs which can be accessed here;

<https://iho.int/uploads/user/Services%20and%20Standards/S-100WG/MISC/S-101%20PT%20TORs.docx>



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# PROPOSED WAY FORWARD (IN SCOPE)

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- S-101 1.0.0 was published in 2018 however, some components remained incomplete or were not present in that edition

Component	Status	Comments
Product Specification Main Document	Complete	Complete but subject to refinement.
Data Classification and Encoding Guide	Complete	Complete but work to further evolve the data model and encoding guidance is required. A number of outstanding comments remain.
Feature Catalogue	Complete	Complete although some aspects may require further refinement.
Portrayal Catalogue	Partially Complete	Reflects S-52 and some symbology not present. Work to develop new/refined symbols is required.
Validation Checks	Not Included	Without these the production of test datasets is limited.
Exchange Catalogue	Partially Complete	Sufficiently complete to support limited testing but work is underway at the S-100WG level.
Data Protection	Partially Complete	Part 15 was present in S-100 4.0.0 but further evolution is likely.
Interoperability Catalogue	Not Included	S-98 is still being developed.
Alerts and Indications Catalogue	Not Included	This component is not yet present in S-100.



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# LONGER TERM PLAN

International Hydrographic Organization

S-100 4.0.0

S-100 5.0.0 +

Readiness levels	Dec 2018	Jun 2021	Dec 2022			From Mid 2023 ??
	Level 1	Level 2	Level 3	Level 4	Level 5	
<b>S-101 Edition</b>	1.0.0	1.1.0	2.0.0			
<b>Required product specification component</b>						
Main Prod. Spec. Document	X	X	X	X	X	
A Default encoding	X	X	X	X	X	
Feature Catalogue	X	X	X	X	X	
Data Classification and Encoding Guide (DCEG)	X	X	X	X	X	
Portrayal catalogue		X	X	X	X	
Validation tests and test datasets		\	X	X	X	
Exchange Catalogue		\	X	X	X	
Data protection (compression, encryption and digital signatures)			X	X	X	
Interoperability catalogue (Scope TBD)			X	X	X	
Alerts and Indications catalogue				X	X	
<b>Operational S-101 data</b>						X
<b>S-100 ECDIS Type approval</b>						
New versions of IEC Standard 61174 and S-164 IHO Test Data Sets for ECDIS (UAT and test datasets)					X	
Operational use of S-100 ECDIS and S-57/S-101 products					X	
<b>Operational Dual-standard S-57/S-101 ECDIS</b>						X

This table reflects the S-100WG report to HSSC-12 and shows the different components needed to achieve the defined readiness levels.

The proposed work plan will achieve Level 2 in most areas and prepare the way for a version 2.0.0 once the other aspects have matured in S-100.

With support for meaningful testing 1.1.0 will allow data model and portrayal improvements to progress while S-100 stabilises to support 2.0.0

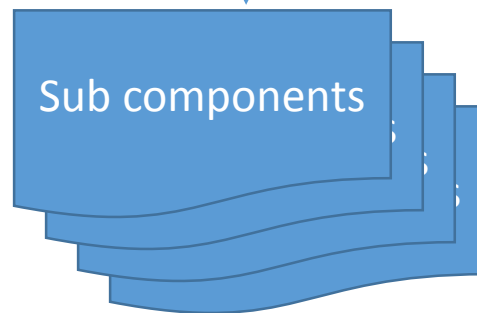
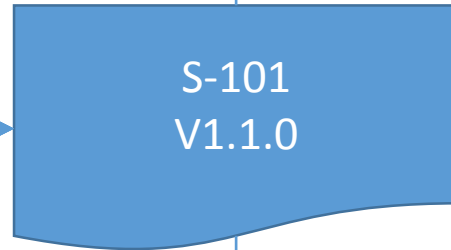
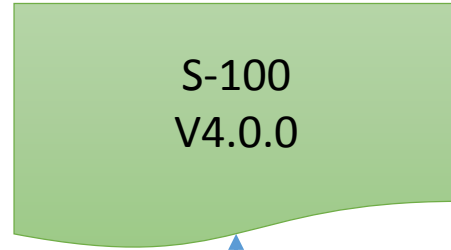
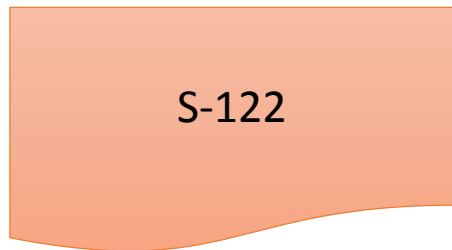


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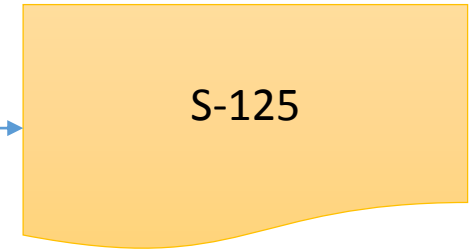
# S-101 INTERDEPENDENCIES

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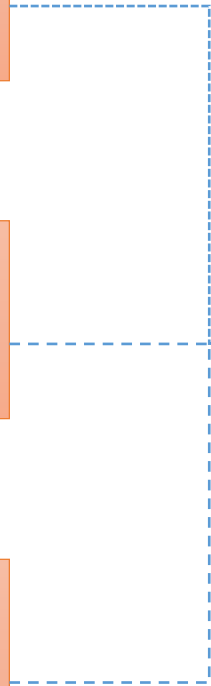
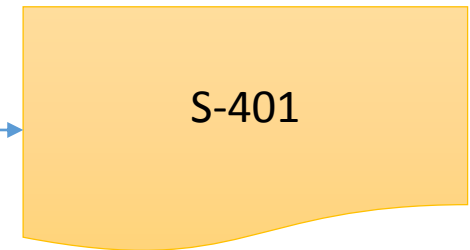
*Specifications which S-101 should be consistent with i.e. via a mapping*



*S-101 has to relate to a version of S-100 and currently S-100 5.0.0 is expected to be delayed*



Specifications which build on S-101





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# SCOPE FOR 1.1.0 (SIMPLIFIED)

International Hydrographic Organization

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IN

OUT



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# OUT OF SCOPE FOR 1.1.0

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- Validation Checks which are Errors or Warnings  
(however the sub group will include these if possible)
- Alerts and Indications – this remains dependent on inclusion of this model in S-100
- Test Datasets – test datasets for validation checks will be included if progress allows, limited test data reflecting S-64 will be included
- Exchange Catalogue – as these elements of S-100 are undergoing further development and S-101 1.1.0 will reflect S-100 4.0.0 the Exchange and Data Protection elements will remain subject to change



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# PROPOSED S-101 PT WORKPLAN

International Hydrographic Organization

Ref	Task	Dependencies	Who	Start	End	Status
<b>A1</b>	<b>Develop and Finalize Edition 2.0.0 of S-101 ENC Product Specification</b>					
	Intent is to deliver an updated and more complete S-101 1.1.0 during 2021 so that meaningful testing can support a 2.0.0 aligned with a future version of S-100.					
<b>A.1.1</b>	<b>Conduct a review cycle of the S-101 Data Product Specification and DCEG. Includes comment review.</b>	<b>None</b>	<b>ALL</b>	<b>01/10/2020</b>	<b>31/01/2021</b>	<b>PLANNED</b>
<b>A.1.2</b>	Process registry changes resulting from review of the DPS and DCEG.	A.1.1	IHO Sec	31/01/2021	28/02/2021	PLANNED
<b>A.1.3</b>	Prepare an updated Feature Catalogue for S-101 1.1.0.	A.1.1/A.1.2	KHOA	01/03/2021	31/03/2021	PLANNED
<b>A.1.4</b>	<b>Prepare new and updated Portrayal content.</b>	<b>A.1.1</b>	<b>Port SG</b>	<b>01/10/2020</b>	<b>31/03/2021</b>	<b>IN PROGRESS</b>
<b>A.1.5</b>	Process registry changes resulting from Portrayal work.	A.1.4	IHO Sec	01/04/2021	30/04/2021	PLANNED
<b>A.1.6</b>	Prepare a complete PC for S-101 1.1.0.	A.1.1, A.1.2	KHOA	01/05/2021	31/05/2021	PLANNED
<b>A.1.7</b>	<b>Prepare an initial draft set of S-101 Validation Checks. (Critical checks as a minimum)</b>	<b>A.1.3/A.1.6</b>	<b>VC SG</b>	<b>01/04/2020</b>	<b>31/05/2021</b>	<b>IN PROGRESS</b>
<b>A.1.8</b>	Prepare content for publication.	Various	IHO Sec	01/02/2021	31/05/2021	PLANNED
<b>A.1.9</b>	Conduct pre-publication quality checks.	A.1.8	ALL	01/06/2021	31/08/2021	PLANNED
<b>A2</b>	<b>Monitor the implementation of S-101 to S-100 Readiness Level 4</b>					
	<i>To be developed by early 2021 - Chair to lead</i>					
<b>A3</b>	<b>Review the S-101 Value Added Roadmap annually</b>					
<b>A.3.1</b>	Chair to prepare updated draft.		Chair			PLANNED
<b>A.3.2</b>	Conduct a review cycle.	A.3.1	All			





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# **ENABLING ACTIVITIES**

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- **End User/Stakeholder Engagement**

End user input is vital to the success of S-101, as S-101 matures a plan for that engagement needs to be developed and will require HSSC level approval. Through the new conversion sub group engagement with ENC producers and industry will also be required.

- **Development of Formal Change Process**

As described at agenda item 4.3 a Portrayal change request form will be put in place. This approach will be adopted to support ongoing maintenance of S-101 as the standard matures.

- **Issues and Risks Log**

It is proposed to establish logs of issues and risks for S-101 to support testing and management of progress. This approach will ensure that interdependencies are considered and risks are appropriately managed.



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# RECOMMENDATIONS

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- In order to progress the work of the S-101PT it is necessary to set out a clear work plan to support the development of S-101 1.1.0. The proposed plan will deliver a more complete S-101 specification to support meaningful testing including end user feedback.
- The S-101PT is invited to:
  - a. Endorse the proposed work plan included at Annex A of this paper.\*
  - b. Endorse an activity to design an engagement **plan to** ensure S-101 meets end user needs and to support S-101 implementation through engagement with producers and industry to deliver work item A2.
  - c. Endorse the establishment of a change management process for S-101 to support ongoing maintenance.
  - d. Endorse the establishment of an Issues and Risks Log to support the delivery of the S-101PT Work Plan.
  - e. PT members are invited to indicate resource availability to support this work.