

Paper for Consideration by TSMAD and DIPWG

S-101 Document Layout

<i>Submitted by:</i>	S-101 Work Item Leader
<i>Executive Summary:</i>	This paper seeks to introduce the use of a business rule annex in S-101
<i>Related Documents:</i>	S-101 Product Specification
<i>Related Projects:</i>	N/A

Introduction / Background

1. One premise of S-101 is that it will combine all relevant documentation in order to ensure information is easily accessible. Also, in order to apply the lessons learned from the implementation of S-57 and S-52 it has been decided that S-101 will be a prescriptive product specification.

Analysis/Discussion

2. S-101 should provide a single reference for all information specific to S-101 ENCs. This is a departure from the current structure where information regarding ENC's are covered in a variety of IHO standards such as S-57, S-52, S-58, S-65, S-63 and S-64 in addition to various IHO guidelines. Under the current structure it is sometimes difficult to find all the information that is needed for end to end production and display of ENCs.
3. This paper seeks to clarify which existing IHO documents are incorporated into S-101, and which will remain separate entities. The requirements for maintenance and the potential for other products should be considered when deciding what should go into S-101.
4. The following table outlines IHO standards and guidelines that contain ENC related information:

IHO Standard	Title
S-52	Specifications for Chart Content and Display Aspects of ECDIS, Edition 6.0, March 2010
S-57	IHO Transfer Standard for Digital Hydrographic Data, Edition 3.1, November 2000 - Main Document
S-58	Recommended ENC Validation Checks. (S-58 Ed4.1 January 2010)
S-62	ENC Producer Codes
S-63	IHO Data Protection Scheme
S-64	ENC Test Data Sets
S-65	ENC Production Guidance
S-66	Facts about Electronic Charts and Carriage Requirements (Ed 1.0.0, January 2010)

5. It should also be noted that a product specification is an explicit set of requirements, however, in order to apply lessons from past experience it has been discussed that S-101 shall also specific functional requirements to guide implementation. In order to document these requirements, the S-101 work item leader is proposing that they be contained in a separate normative annex within S-101 called S-101 Implementation Requirements which will give OEM's the intent behind the specification.

6. The proposed structure of the S-101 Business Rule Annex is to follow the structure of the main document.
7. The following table outlines the proposed structure of S-101

Organizational Content	Remarks
S-101 Main Document	This contains all the requirements needed to create and display ENC's
Annex A (normative)	S-101 8211 Encoding
Annex B (normative)	Data Classification and Encoding Guide – This is intended for ENC producers and encoders
Annex C (normative)	Business Rules of S-101 – This is intended for Software Manufactures and OEM's. The intent behind this annex is to provide use cases as to how the data should behave.
Annex D (normative)	S-58 Validation Checks
Annex E (normative)	S-101 Feature Catalogue
Annex F (normative)	S-101 Portrayal Catalogue
Other Annexes (informative)	S-52 colour tables etc...

Conclusions

8. Currently, this proposal only seeks to incorporate S-57, S-52 and S-58 into S-101. However, TSMAD would welcome discussion regarding the other standards that are relevant to ENC and if they should be incorporated into S-101.

Recommendations

9. TSMAD and DIPWG discuss and approve the proposed organizational outline to S-101 and to discuss if other relevant IHO standards should be reviewed for inclusion into S-101.

Action Required of TSMAD and DIPWG

The TSMAD and DIPWG is invited to:

- a. endorse the proposed structure of S-101 as outlined in paragraph 7.
- b. discuss the review and inclusion of other IHO standards in S-101.