

Paper for Consideration by TSMAD/DIPWG

S-58 Validation Checks for S-101

Submitted by:	TSMAD Vice Chair
Executive Summary:	This paper outlines a way forward for S-101 validation checks for consideration by TSMAD
Related Documents:	S-58, TSMAD22/DIPWG3 11.4A
Related Projects:	S-101

Introduction / Background

In June 2014, the IHO published a new edition of S-58 (5.0.0). This edition was a major rewrite of the previous edition in order to clarify ENC validation checks. This latest edition will form the foundation of the S-101 validation checks, since some of the principles are the same within both S-57 and S-101. This paper proposes a way forward for drafting the initial validation checks and where they should be documented.

Analysis/Discussion

At TSMAD22 it was initially presented that the S-58 checks for S-101 should be housed in a normative annex. However, it was decided that the checks should be part of S-58. In the meantime, progress has been slow on creating the S-101 checks due to the lack of stability of S-101. Now that S-101 has been stabilized, it is time to revisit the future location of S-58.

The rationale behind S-58 as a separate document was that S-57 was frozen, yet there was a need to continuously improve the validation checks. In the world of S-101, the product specification will not be frozen and it makes more sense to keep the S-101 validation checks as a normative annex. So when a part of S-101 is changed the accompanying validation check can be changed and the entire product specification can go forward for approval, rather than having to have the member states approve both S-101 and another version of S-58. It is also recognized that S-57 will be in place for many years to come, and it may be confusing to stakeholders if there are multiple new editions of S-58 published because they affect S-101 and not S-57 or vice versa.

It is also recognized that the current of edition of S-58 can be used as a baseline for the S-101 validation checks. However, there will be extensive modifications. The following table lists the current sections of S-58 and some proposed activities:

S-58 Content	Activity
Checks relating to S-57 data structure	Revise checks based on any amendments to the S-101 data structure and DCEG rules. Many constructs are the same, but there are some differences
Checks relating to the ENC Product Specification	Revise checks based on S-101 Product Specification and DCEG
Exchange Set Level Checks	Revise to S-101
Checks relating to the Use of the Object Catalogue for ENC	Revise to the S-101 DCEG
Checks relating to allowable attribute values for particular object classes (check 2000)	Consider removing this check in favor of compliance against the S-101 feature catalogue

In order to ensure that the checks remain in sync with the rest of S-101 they will also need to have a link between the check and the section that the check is applicable to.

In looking at the S-101 development schedule, it is hoped that there could be an initial draft of the S-101 checks for S-58 by early 2016 in order to all validation software producers time to familiarize themselves with the types of changes.

However, because the expertise in S-58 and ENC validation it is hoped that the S-58 sub-working group under the ENC working group will assist with this task.

Recommendations

This paper makes the following recommendations for consideration by TSMAD:

1. Include the S-101 validation checks as a normative annex to S-101
2. That the S-58 sub working group be responsible for the initial draft of the annex
3. Consider the removal of check 2000 in favour of using the feature catalogue as a validation check to perform a similar function.

Justification and Impacts

By including the S-101 validation checks as a Normative annex to S-101 it will make upkeep of the entire product specification much easier by creating a “one-stop” shop. Much like the S-101 DCEG subworking group is made up of encoding experts it is hoped that the S-101 validation checks will be handled by the relevant experts in ENC validation.

Action Required of TSMAD/DIPWG

The TSMAD/DIPWG is invited to:

- a. agree to housing the S-101 validation checks as a normative annex to S-101
- b. consider tasking the creation of the S-101 validation checks to the S-58 sub-working group with a first draft completed by early 2016.
- c. removing check 2000 in favour of validating against the S-101 feature catalogue.