

**2<sup>nd</sup> S-100WG MEETING**  
**Genoa, Italy – 15-18 March 2017**

**Paper for Consideration by the S-101 Project Team (S-101PT)**

**Status of the S-101 Data Classification and Encoding Guide**

<b>Submitted by:</b>	IHO Secretariat (TSSO).
<b>Executive Summary:</b>	Baseline Version 0.0.2 of the S-101 Data Classification and Encoding Guide was finalized in August 2016. Since then, further minor changes have been applied.
<b>Related Documents:</b>	1. IHO Publication S-100 – <i>Universal Hydrographic Data Model</i> ; 2. S-101 – <i>ENC Product Specification</i> .
<b>Related Projects:</b>	Development of S-101.

### Introduction / Background

Development of S-101 – *ENC Product Specification, Annex A – Data Classification and Encoding Guide* (DCEG), commenced in 2009. Baseline Edition 0.0.1 of the DCEG was published in April 2014, in order to allow software developers to progress the development of S-101 (S-100) test beds and the S-57 to S-101 Converter. Since the publication of Baseline Edition 0.0.1, the DCEG has undergone continuous revision resulting from revisions to S-100, proposals to the S-101 Project Team (S-101PT), and feedback from other IHO Working Groups and international organizations. Baseline Version 0.0.2 was prepared in August 2016, and this version has since undergone further revision.

This paper introduces the latest draft Baseline Version 0.0.2 of the DCEG and supporting change history documentation.

### Analysis / Discussion

The Baseline S-101 DCEG (Version 0.0.1) published in April 2014 consisted of a “clean” version of the document, and a “colour mark-up” of the document that principally indicated the differences between the DCEG content and the S-57 ENC Product Specification (in particular its Appendix B.1 – *Use of the Object Catalogue for ENC*). The record of proposals submitted (and decisions on agreement/rejection), discussions regarding revisions to data modelling and records of DCEG Sub-WG meetings are contained in numerous documents, spreadsheets and iterations of the draft DCEG. All of these records are now held by the IHO Secretariat, and can be considered to be historical.

For the Baseline Version 0.0.2 DCEG, a single spreadsheet has been initiated as a cumulative “Change Log” document. This document records the changes that have been made from Baseline Version 0.0.1 (pending and approved); the references to any supporting documentation/proposal/discussion prompting the change; and contains a separate tab for issues that require further discussion or draft changes requiring adjudication from the S-101PT (changes pending). It is intended that this spreadsheet will be extended to include additional tabs for further Baseline versions of the DCEG. **NOTE:** Minor changes of an editorial nature have not been included in the spreadsheet, but are highlighted in the “red line” draft DCEG.

The Baseline Version 0.0.2 of the DCEG was prepared for consideration of the S-101PT and submitted to the Project Team for comment in June 2016. This draft included all DCEG actions from the S-101PT1 meeting (Tokyo, March 2016 – refer meeting Minutes and list of actions). Following the incorporation of comments received from the Project Team, a final draft Baseline Version 0.0.2 of the DCEG was prepared, and approved by the S-101PT Coordinator. This version is dated August 2016, however this version unfortunately was not posted on the IHO web site (the version currently on the web site is the March 2016 draft version submitted to the S-101PT1 meeting).

Since the August 2016 Baseline 0.0.2 draft, there have been a number of additional changes made to the draft. Considering that the August draft version was not published on the IHO web site, the Baseline version number has been retained at 0.0.2.

The following documents have therefore been submitted for information/discussion to the S-101PT2 meeting:

- “Red line” Baseline DCEG version 0.0.2 (August 2016);
- “Red line” (track-changed) Baseline DCEG version 0.0.2 (March 2017) showing changes from the August draft;
- “Clean” Baseline DCEG version 0.0.2 (March 2017);
- Cumulative Change Log spreadsheet.

Within the Change Log spreadsheet, there are a number of items that require discussion, listed under the “Pending” tab. Many of these items are outstanding discussion items from the preparation of the Baseline version 0.0.1 document. If time allows, it is requested that discussion commences on these items, perhaps as a DCEG Sub-WG break-out session during the S-101PT2 meeting, with the intention of including approved changes in the next DCEG draft (0.0.3?). Of particular note are those items described as “TO BE CONFIRMED”, which are highlighted as red text in the “Description of Change” column. These are changes that have been made in the 0.0.2 draft, based on discussions and observations within the IHO Secretariat and related to papers submitted to the S-100WG2 meeting. Approval for these changes to be incorporated into the 0.0.2 Baseline will be subject to decisions made at that meeting.

It should also be noted that there have been several papers submitted to the S-100WG2 meeting that have the potential to have further significant impact on the S-101DCEG.

### **Conclusions**

The S-101 DCEG Baseline continues to mature as more experience is gained in S-100 and it is anticipated that this will accelerate as S-100 test beds mature. S-101 DCEG Baseline version 0.0.2 is intended to assist with this test bed development through incorporation of feedback from the 0.0.1 draft.

### **Recommendations**

1. S-101PT to endorse the draft Baseline DCEG version 0.0.2.
2. S-101PT to discuss the pending items listed in the Change Log spreadsheet, with priority given to the items highlighted in red.

### **Justification and Impacts**

The draft S-101 DCEG Baseline version 0.0.2 is considered to be an improvement on the 0.0.1 version, and will hopefully facilitate S-100 test bed and associated software development.

### **Action required of S-101PT**

The S-100WG is invited to:

- a. **Note** this paper.
- b. **Approve** the S-101 DCEG Baseline version 0.0.2.
- c. **Discuss** the outstanding items included in the Change Log spreadsheet, and initiate the appropriate action.