

S-100WG-4 meeting

Report of the
Data Quality Working Group



Principal activities and achievements

- Membership
 - 17 Member States
 - 3 Expert Contributors
- Meeting
 - DQWG-14, 05 – 08 February, IHO Secretariat, Monaco
 - 16 participants (11 member states)
 - IHO Secretariat Staff joined for some items on the agenda



Principal activities and achievements

1. Develop and maintain a data quality checklist for product specification developers.
 - DQ checklist was developed and reviewed by correspondence.
 - Result was provided as input into S-97 – part C Data Quality.
 - S-127 developers followed the guidance, resulting in a very good example of DQ Measures and associated Validation Checks.
 - S-101PT included this guidance in their Validation Checks.
 - S-97 part C was reviewed at DQWG-14.
 - Demand for graphical examples, mainly Topology Checks.



Principal activities and achievements

2. Periodically review S-100 based product specifications for DQ aspects.
 - Review of Product Specification S-101.
 - Review of Product Specification S-102.
 - Review of Product Specification S-127.

- DQWG will continue to work on a Minimum Standard for Data Validation, in liaison with the S101PT/ENCWG.
- S-102 PS is unclear about horizontal/vertical accuracy.



Principal activities and achievements

3. Monitor periodically development of ISO and other international standards regarding DQ and advise the S-100WG accordingly.
 - DQWG14-10J: Data integrity, marine boundaries from a MSDI perspective.
 - DQWG recommends that the process of SENC distribution that entered into force for certified* (Norske Veritas procedure) value-added resellers for S-57 data should be considered (or re-considered) within the S-100 framework for S-100 based products.



Principal activities and achievements

4. Provide guidance on DQ aspects to HOs, in particular to ensure harmonized implementation.
 - Members shared their national policies how the quality of a single survey is translated into the appropriate M_QUAL/CATZOC value.
 - CSB is typically assigned CATZOC = D.
 - SDB is typically assigned CATZOC = C.
 - LIDAR survey is typically assigned CATZOC = B (sometimes A2).
 - Port authority surveys are typically assigned CATZOC = B, on port-by-port basis a higher value.
 - Some members do not downgrade CATZOC over time d/t temporal variation but instead provide M_SREL data.



Principal activities and achievements

4. Provide guidance on DQ aspects to HOs, in particular to ensure harmonized implementation.
 - Different depth ranges are used in various standards.
 - S-44: 40m and 100m boundary.
 - S-52: default safety depth and safety contour = 30m.
 - C-55: 200m boundary.
 - S-4: 0, 2, 5, 10, 20, 30, 50, 100, 200, 300, 400, 500, 1000, 2000m etc.
 - High density ENC's: 3, 8, 15, 25, 40 and 75m and multiples of 10 or 100m may be shown. (S-4 recommendation).



Principal activities and achievements

4. Provide guidance on DQ aspects to HOs, in particular to ensure harmonized implementation.
 - Guidance document: How to provide meaningful Quality of Bathymetric Data (QoBD) values.
 - Decision tree, textual and graphical.
 - Best practise from Survey to QoBD.
 - Aggregation of QoBD in relation to the compilation scale of the chart.
 - Small scale charts inherit their values from large scale charts.
 - Separate : conversion from M_QUAL/CATZOC -> QoBD. (S57->S101)



Principal activities and achievements

5. Provide data quality educational material for the use of Mariners.

- S-67: Mariners Guide to the Accuracy of Depth Information in Electronic Navigational Charts.
- Edition 0.8 – review done.
- First complete Guidance to HO, then explain the CATZOC symbol and isolated features hazardous to navigation in S-67.
- Remove guidance on UKC calculations.
- Verify S-67 against S-4.
- S-67 medium priority.



Principal activities and achievements

6. Review appropriate methodology for the display of quality information to Product Specification developers.
 - Interactive workshop session at DQWG-14
 - Input papers: current CATZOC symbology, NCWG3-08.4A, DQWG14-08C, AHO comments.
 - Intertanko paper HSSC9-05.2D (end user perspective).
 - 17 observations resulted from this workshop (DQWG-14 Draft minutes).
 - DQWG will draft a proposal, also supportive for autonomous shipping.
 - DQWG will after HSSC approval, provide the proposal to other WGs. (ref task HSSC10/47).



Action requested of S-100WG

- Note this report
- Expect to review the draft Guidance for HOs. (release June 2019)
- Expect to participate into the portrayal concept of Data Quality, test data is needed. (S-101PT, June 2019).
- Be informed of the difference between CATZOC (S-57) and Quality of Bathymetric Data (S-101 DCEG).
- Take any action as deemed necessary.

