

Paper for Consideration by S101PT5

Grouping of Soundings in ENC Updates

Submitted by:	Australia (AHO)
Executive Summary:	In S-57, the identification of soundings impacted by an ENC Update is dependent of the use of 'sounding groups' and the way ECDIS manufacturer have implemented the 'Check updates' functionality in their systems. Based on this, the AHO is of the idea that additional encoding guidance should be included in the UOC.
Related Documents:	S-57 Appendix B.1 - Annex A UOC; S-52 PresLib Ed 4.0.2 Part I (10.7.2)
Related Projects:	ENCWG

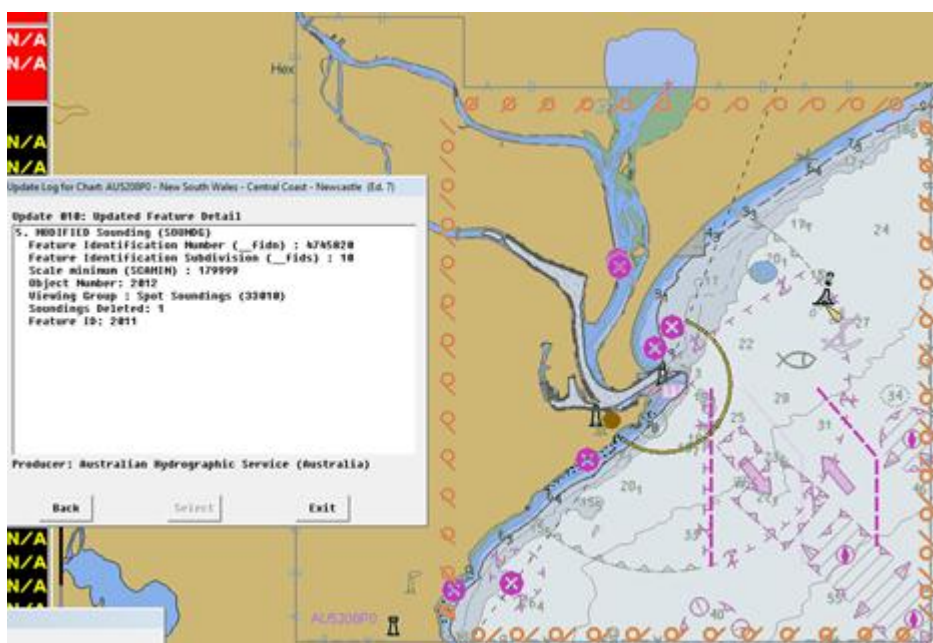
Introduction and Analysis

It has been observed that the identification of soundings impacted by ENC updates in ECDIS is influenced by the following factors:

- The type of change (i.e. new sounding; new or modified attribute value; deletion)
- The grouping (or not) of the affected sounding/s to other unmodified depths before exporting the ENC Update
- The way ECDIS manufacturers implemented the highlighting and listing of individual objects affected by an ENC Update

When new/modified soundings were included into existing clusters and the 'Review Update' functionality was activated in ECDIS, the following different results were observed depending on the ECDIS brand in use:

1. The ECDIS display was taken to the area covered by the sounding group and the correct S-52 symbology (i.e. modified feature) was inserted around an area object (artificially created by the ECDIS) bounding the sounding group extent.



2. The ECDIS display was taken to the centre of the area covered by the sounding group but, this time, only the affected soundings (which could be far apart sometimes) were individually symbolised using the right 'correction type' S-52 point symbol. It was not possible to jump from sounding to sounding as there was only one ENC change listed by the ECDIS (Modified SOUNDG).

Conclusion

Decisions made at the time of exporting an ENC Update (i.e. group soundings) may end up affecting a mariners' ability to accurately pinpoint ENC changes in ECDIS.

More investigation is needed but it looks like soundings affected by an update should not be grouped with other depths before exporting an ENC Update.

It is also clear that there is not enough standardisation as to guarantee the consistent implementation of the 'Review Update' functionality by OEMs. This negatively affects generic ECDIS training practices and adds confusion to mariners.

Note: The ENCWG has discussed and agreed that further standardisation of the 'Review Update' functionality in ECDIS is required and it should be included in the S100 ECDIS performance requirements.

Action Required of ENCWG

The S101PT is invited to:

- a. Confirm further standardisation of the 'Review Update' functionality in ECDIS is required and that it should be included in the S100 ECDIS performance requirements.
- b. Agree that the proposed solution must include mariners input and therefore a survey form should be prepared and distributed to key stakeholder forums (TBD) to gather their views.
- c. In the meantime, include guidance in the DCEG recommending encoders not to include new/modified soundings into existing sounding groups when creating an ENC Update.