

Paper for Consideration by S-101PT

Precision of attribute “value of sounding”

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| Submitted by: | France, UK, AUS, NL, SE |
| Executive Summary: | It is proposed to align the precision for attribute value of sounding with the one for Sounding feature. |
| Related Documents: | S-101FC, S-101DCEG. |
| Related Projects: | S-101. |

Introduction / Background

1. Although S-101PT 9 agreed on changing aligning the precision for Sounding feature in S-101 with S-4, that is 0.1 metre, the precision for attribute **value of sounding** has remained unchanged and is 0.01 metre in S-101 1.2.0.

Analysis/Discussion

2. Depths value in S-101 can be encoded by:
 - Z value on feature **Sounding** or
 - attribute **value of sounding** on features such as Wrecks, Obstructions, etc.
3. S-101PT 9 (November 2022, Wellington, NZ) agreed on aligning the precision for **Sounding** feature in S-101 with S-4, that is 0.1 metre. 1.2.0 DCEG 1.3.1: “As the sounding multiplication factor (CMFZ) for ENC is 10, soundings may be encoded to one decimal place of a metre.”.
4. The precision for attribute **value of sounding** has remained unchanged and is 0.01 metre in S-101 1.2.0”.

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| <p>27.191 value of sounding (VALSOU)</p> <p><u>IHO Definition:</u> VALUE OF SOUNDING. The value of the measurement of a sounding relative to the chart datum. (S-57 Edition 3.1, Appendix A – Chapter 2, Page 2.232, November 2000).</p> <p><u>Attribute Type:</u> Real</p> <p><u>Unit:</u> Defined as an attribute in the ENC dataset metadata: metre (m)</p> <p><u>Resolution:</u> 0.01m</p> <p><u>Format:</u> sxxxxx.xx s: sign, negative values only</p> <p><u>Examples:</u> 18.20 for a sounding of 18.2 metres -2.46 for a drying height of 2.46 metres</p> <p><u>Remarks:</u></p> <ul style="list-style-type: none"> • A drying height is indicated by a negative value. |
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5. The following elements should also be considered:
 - Z value on **Sounding** feature and **value of sounding** attribute value convey the same information to the end user;
 - A one-centimetre precision is not in line with S-4 and does not really make sense on a Nautical Chart (noting that the best ZOC accuracy for depths (for A1 ZOC) is 0.50 metre);
 - The precision indicated for attribute **value of sounding** in the IHO Registry is currently 0.1 metre.

Recommendations

It is recommended to:

- change the precision for **value of sounding** attribute to 0.1 metre in S-101 Ed. 2.0.0 (DCEG and FC)

Action Required of S-101PT

The S-101PT is invited to:

- a) Discuss this paper;
- b) Agree on the recommendation.