

**Paper for Consideration by S-100 WG**

**S-102 Encoding instruction and inconsistencies**

<b>Submitted by:</b>	Teledyne CARIS
<b>Executive Summary:</b>	Definition of Min/Max Extents
<b>Related Documents:</b>	S-102 IHO Bathymetric Surface Product Specification.
<b>Related Projects:</b>	

**Introduction / Background**

Teledyne CARIS has undertaken the task to enable the creation and handling of S-102 datasets in its COTS application and has identified areas for improvement in the S-102 specification to provide more clarity for implementation.

Findings from work to support the creation of the S-102 dataset indicate that a change to how the Min/Max extents are defined is required.

**Analysis/Discussion**

Under Group.001, we see an extent group. S-100 does allow for an optional min/max dataset called extent with two rows as specified in S-100 Table 10c-11. However, the Group\_F datasets already provide a mechanism to provide min and max values. Also, S-102 never specifies the use of this table. It is completely absent from S-100 Table 10-1. If it were included, it would not be a group, it would be a dataset.

Reference: S-102 Table 10-1 does not indicate the use of an extent table. S-100 Table 10c-11 defines the extent dataset as a dataset, not a group.

**Conclusions**

Extents groups should not be provided.

**Recommendations**

It is recommended that the specification should be adjusted to remove the extents group.

**Justification and Impacts**

Remove ambiguities that will result in inconsistent encodings.

**Action Required of [HSSC] [Relevant HSSC WG]**

The [HSSC] [Relevant HSSC WG] is invited to:

- a. endorse .....
- b. agree .....
- c. note .....