TSMAD 23 4.5.10

Paper for Consideration by TSMAD

Text Placement in S-101

Submitted by:	UK
Executive Summary:	This paper outlines an approach to including text placement information in S-101 ENCs. It follows discussions at TSMAD 22 and proposes an approach using complex attributes.
Related Documents:	1. TSMAD 22/ DIPWG 3 - 11.11
Related Projects:	1. S-101

Introduction / Background

1. There is a recognized need to improve the display of text in ECDIS. This was discussed at TSMAD 22 following a paper submitted by the UK. There was general agreement on the need for text placement but limited consensus on how it might be implemented. There was agreement that it should be possible to control the display of text through the scales as with the application of SCAMIN to features within a dataset. However it was noted that this should not become over complicated for producers.

Analysis/Discussion

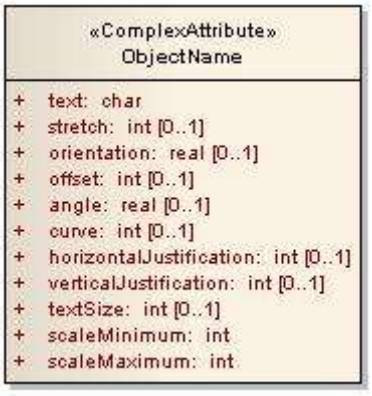

Figure 1 - UML diagram using Object Name as an example and showing the attributes to support text placement.

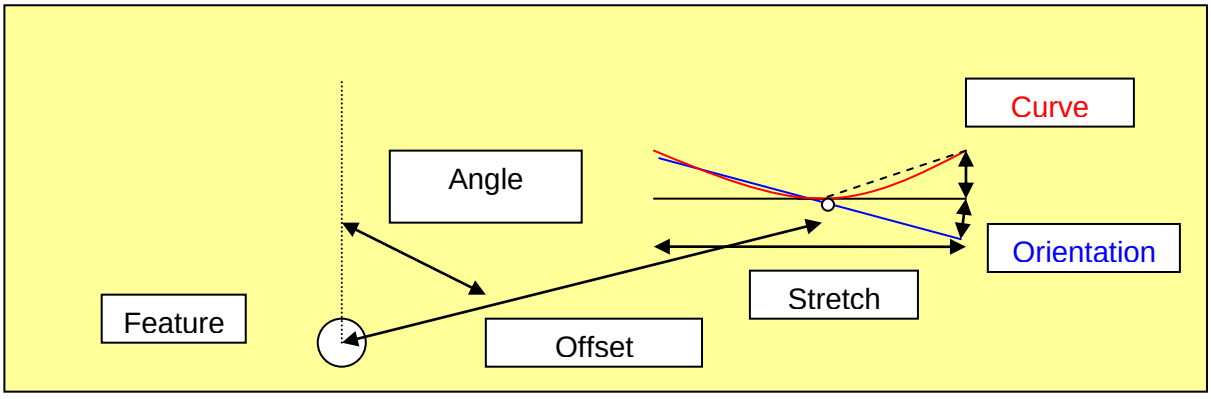

Figure 2 – Explanation of the simple attributes which support text placement.

2. The approach proposed in this paper is shown in figure 1, figure 2 explains the meaning of the simple attributes used in this approach. A single complex attribute is used with simple attributes to carry the text string and attributes to position and adjust it as required. The attributes used are explained below;

- Text – The text string which will be displayed. (examples such as light legends will not have this attribute)
- Stretch – The length of the text string where 1 is the default.
- Orientation – The rotation of the Text string.
- Offset – The offset of the text position from the centroid of the feature in metres.
- Angle – The angle of the text position from north.
- Curve – A value for the curvature of the text string.
- Horizontal Justification - ?
- Vertical Justification - ?
- Test Size – The font size of the text, if not populated the default value will be used.
- Scale Minimum – The minimum scale at which the text will display.
- Scale Maximum – the maximum scale at which the text will display.

3. The following examples demonstrate this approach;

Feature – BuoyLateral

Complex Attribute – ObjectName
Simple Attribute – text = East Vanguard
Simple Attribute – orientation = 45
Simple Attribute – angle = 270
Simple Attribute – offset = 20

Conclusion

4. This work addresses an identified mariner need to clearly identify areas of change on ENCs. It proposes a practical solution which will be a demonstrable improvement over S-57 ENCs.

Action Required of TSMAD

To consider the proposed approach to incorporating text placement in S-101 and discuss.

To consider the inclusion of the wording below in the S-101 Product Specification.

Text Placement

Certain attribute values are displayed as text in ECDIS, cartographic text attributes may be used to determine how this text displays. This enables the text to be positioned appropriately by the data producer. These attributes are specified in the Data Classification and Encoding Guide. When these attributes are not populated the ECDIS will use the default values specified in the Portrayal Catalogue.