

Paper for Consideration by TSMAD/DIPWG

Use Case for Themes to Improve the User Experience

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Executive Summary:	This paper proposes a use case for the inclusion of themes in S-101 data. These themes will support better structured interfaces in S-100 ECDIS.
Related Documents:	1. S-100 2. TSMAD20/DIPWG2 16.2A
Related Projects:	1. S-101

Introduction / Background

1. In addition to the chart display a key element of ENC functionality is conveying textual information to the user. This includes the 'pick report' but can be extended to include other information which is conveyed in a textual form to supplement the graphical display. In order to improve the user experience in future ECDIS, this paper attempts to identify ways in which S-101 data can be structured to support the improved display of textual information. This paper has previously been presented to TSMAD 21 but has been revised in order to be resubmitted to the joint meeting for further consideration.

Analysis/Discussion

2. S-101 includes new constructs such as complex attributes and theme feature types, these can support improved structure of textual information in future ECDIS. One way to realize this improvement would be to include themes within S-101 Datasets which group related information. This paper proposes a theme use case to support the structure of pick reports. Use cases are required to ensure that constructs are only included where there is a clear user requirement.

3. One of the conclusions of TSMAD20/DIPWG2 paper 16.2A was that filtering by object groups is required to support better structured pick reports. These object groups could be defined as themes in the S-101 Feature Catalogue. Each feature would be bound to a theme and each theme could for example be a tab in a pick report. Further work would be required to determine which themes to use and how many. This paper simply proposes the concept and further development could be undertaken as part of S-101 Feature Catalogue development.

Pick Report		Information	
Topography	Nav aids/Services	Chart Information	Chart Updates (1)
		Depths/Obstructions	Areas/Routeing
Buoy Fl.R.3s Name: Nab Rock More Highlight			
Light Fl(2).W.10s17M Name: <u>Eddystone Rocks</u> More Highlight			

Figure 1. – Example Pick Report structured using four themes.

4. This paper was previously submitted to TSMAD 21 and although some benefits were recognized it was not generally supported. The primary reason was that this grouping could be done in the portrayal catalogue in a similar way to the viewing groups which already exist. The fundamental advantage of

including this structure in the data is that it is then available for use outside of ECDIS. This is particularly important as ENC's become used more widely in mainstream desktop GIS software and in support of E-navigation where consistency across various applications is important.

Conclusion

5. In order to improve the user experience of future ECDIS and ENC's the underlying data structure needs to be designed with ECDIS in mind. The use case proposed in this paper is required to support more consistent interfaces and functionality in future ECDIS. By including this extra information in S-101 datasets use of ENC outside of ECDIS is also improved.

Action Required of TSMAD

6. Consider the following Use Case;

A number of themes which group ENC objects by type should be included in S-101 data to support the structure of Pick Reports and other elements of ECDIS functionality.