

**1st IHO-HSSC Meeting
The Regent Hotel, Singapore, 22-24 October 2009**

**Paper for consideration by HSSC
Information Overlays in ECDIS**

Submitted by:	TSMAD Chair
Executive Summary:	Proposal to investigate and develop a specification template for information overlays used in ECDIS
Related Documents:	S-100
Related Projects:	TSMAD, SNPWG, and DIPWG.

Introduction/Background

The imminent publication of S-100 has provoked discussion recently about the introduction of overlays as a means of finally realizing the “I” in ECDIS in the form of MIOs, ENav etc. With user demand for integrated data services HO’s and third party data producers are continually looking for innovative ways to provide additional information to the mariner. This information is could be displayed in an ECDIS both front and back of bridge.

Analysis/Discussion

While not intending to standardise or constrain the content models of product specifications, there are potential issues in assuming that OEMs would readily accommodate disparate specifications and format requiring costly software updates to implement and maintain. OEMs would be approached independently to get them to agree implementation of their individual solution, including new feature catalogues and portrayal rules. This proliferation of diverse overlays will lead to an untenable situation whereby it would not be cost effective for OEMs to build systems capable of receiving a variety of different types of overlay. Interoperability issues inevitably arise and the integrated service the user was expecting does not materialize.

Conclusions

From the discussion above it is clear that if nothing is done to try and address the potential issues of introducing new overlays we are going to end up with many disparate services from different data providers that are almost impossible to integrate. It is therefore clear a co-ordinated approach to address these issues needs to be sought.

One solution would be to develop a generic product specification template which would be designed (in cooperation with OEMs) in a way that an ECDIS could recognize and deploy without the need for costly software changes or installation requirements. There is no any intention to standardise the content model of a specification.

This would also be in line with plans for the eventual adoption of the new ENC product specification S-101. The intention is to encourage OEMs to adopt a “plug and play” policy to enable easier implementation of new or revised navigation requirements. This includes standardized formats for feature and portrayal catalogues.

It is also recognized that a balance between standardization and OEM differentiation is considered, particularly in the portrayal and user interface areas.

Recommendations

It is recommended that the HSSC task TSMAD, in cooperation with other appropriate working groups and stakeholders, with investigating the practicalities of developing a generic MIO product specification based on S-100 including common characteristics of metadata,

feature/portrayal catalogues and encoding, but does not constrain the data structure or content, other than recommending it conforms to S-100. This topic should also be a primary item on the agenda for the planned 2nd S-101 Stakeholder Workshop.

Justification and Impacts

Approval should be granted for this work item to be added to the TSMAD programme in order to aid the development process of marine information overlays. It will provide a standard framework for data providers and ensure one generic solution for ECDIS manufacturers to implement. This generic overlay product specification will save software development time and lead to an integrated solution for the end user.

Action required

The HSSC is invited to endorse the recommendations of the TSMAD Chair and the inclusion of a new item to be added to the TSMAD work programme.