Paper for Consideration by S-100TSM

Application case of S-100 Interoperability Catalogue

Submitted by:	Republic of Korea (KHOA)
Executive Summary:	This paper reports on the results of update on S-100 GI Registry
Related Documents:	S-100, S-99
Related Projects:	IHO S-100/S-101 Test Bed Project

Introduction / Background

Interoperability Specification (IS) defines a method to display S-100 based products in a harmonized manner and S-100WG decided that Level 0, Level 1 and Level 2 among proposed 5 Levels were used in the S-98. This paper describes considerations identified when creating the interoperability catalogue using S-98.

Analysis

Overview of Interoperability

3 Levels among the proposed 5 Levels were defined in the S-98 interoperability catalogue

- **Level 0**: all interoperability processing is turned off. In this case, feature data is passed through unchanged to ordinary portrayal processing
- **Level 1**: feature type from different products, including S-101, are interleaved as specified by display plane and drawing priority information contained in the interoperability catalogue.
- **Level 2**: if feature types in other products are determined to be superior to specific ENC feature types, the ENC feature types are suppressed.

Level 0 means overlap, Level 1 means interleaving and Level 2 means Suppression between S-100 datasets. Level 1 (Interleaving) can be applied by defining new Display plane and adjusting the value of display priorities.

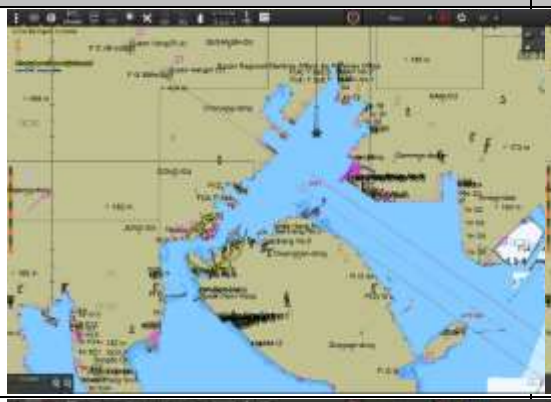
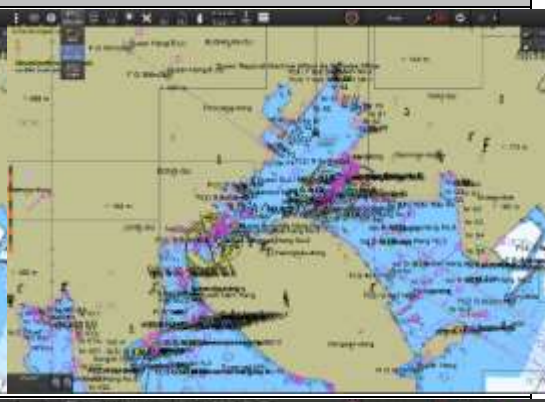
When a portrayal catalogue for S-100 based product specifications other than S-101 ENC is created, display priority and viewing group need to be defined and can be referenced from the S-101 ENC. The S-101 Portrayal catalogue was reused by the value of S-52 as follows;

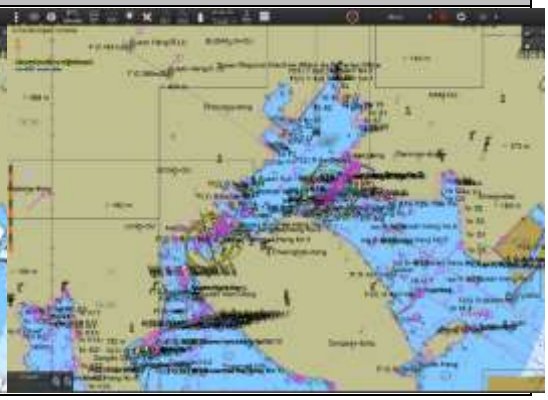
Result of applying Interoperability

KHOA conducted offshore tests for pilot-produced next-generation hydrographic data. In the process, the S-100 Interoperability Catalog was applied. S-100 Product used is as follows.

- S-101 Electronic Navigational Chart (ENC)
- S-102 Bathymetric Surface
- S-104 Water Level Information for Surface Navigation
- S-111 Surface Currents
- S-122 Marine Protected Areas (MPAs)
- S-123 Marine Radio Services
- S-124 Navigational Warnings
- S-127 Marine Traffic Management
- S-129 Under Keel Clearance Management (UKCM)
- S-412 Weather Overlay
- S-413 Weather Overlay (GRID)

The S-100 Interoperability Catalog was divided into Level 0, Level 1, and Level 2 according to the S-98 standard. Some of the results of applying Interoperability Catalouge for each S-100 data are as follows.

	Level 0	Level 1
S-101 with S-102		
S-101 with S-111		
S-101 with S-127		

	Level 0	Level 2
S-101 with S-102		

Detailed results on the application of the S-100 Interoperability Catalogue will be presented at the TSM 7th Conference as a presentation and live demonstration.

Conclusion

KHOA conducted offshore test to verify the results of the pilot production of next-generation hydrographic data, and applied S-100 IC as one of the contents. Experts who participated in the live test confirmed and reviewed the application results.

Action Required of S-100TSM

The S-100TSM6 is invited to:

a. Note the progress reported in this paper
b. Need to discussion subject in this paper