

Paper for Consideration by S-100 TSM

KHOA S-100 Test Bed Project

Submitted by:	Rep. of Korea (KHOA)
Executive Summary:	This paper describes the status and plan of creating S-100 test dataset in the S-100 test bed project of KHOA.
Related Documents:	S-100 4.0, S-101 1.0, Guidance for PS Developers Part A, Part B
Related Projects:	IHO S-100 testbed project, KHOA S-100 testbed project

Introduction / Background

KHOA is conducting the S-100 test bed project to cope with the development of S-100 based product specification of IHO. The important part among research topics is to study the specifications and create test datasets. This paper describes the status and plan of creating S-100 test dataset in the S-100 test bed project of KHOA.

Analysis/Discussion

S-100 based product specifications for creating test datasets in the KHOA project are as follows

- S-101 ENC, S-102 Bathymetric surface, S-104 Tidal height, S-111 Surface current,
- S-122 Marine protected area, S-123 Radio service, S-127 Traffic managements

S-101 ENC

KHOA created test datasets of S-101 ENC for Gusan port in 2016 and for Busan port in 2017. In 2018, it's planned to update the S-101 ENC created earlier and to create new ones in Gwangyang Port.

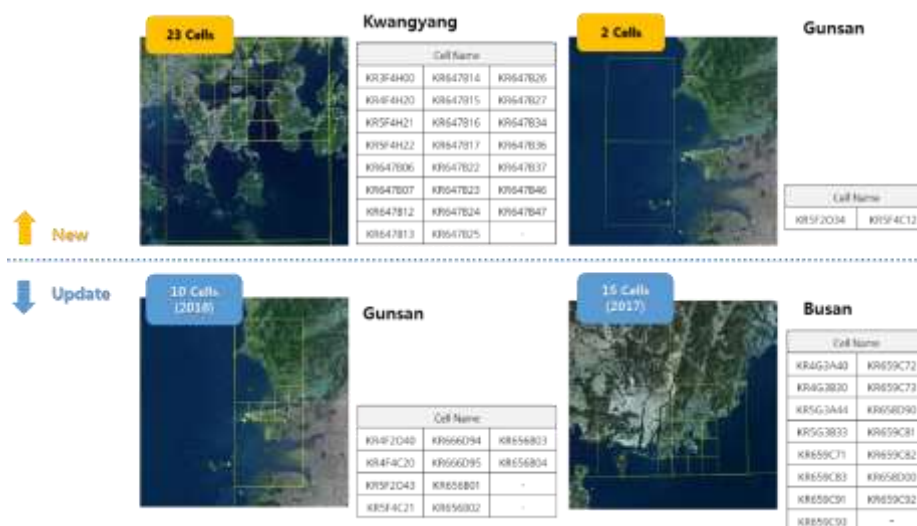


Fig. 1 Plan of creating and updating S-101 ENC

In order to create test datasets of S-101 ENC, CARIS S-57 Composer, NOAA/ESRI Converter and S-100 simple editor will be used.

S-102 Bathymetric surface grid

S-102 bathymetric surface grid will be created for the area of Gusan port in this year and the resolution will be considered in line with the usage band 6 of ENC.



Fig. 2 S-102 Coverage of creating test datasets of S-102 Bathymetric surface grid

S-102 edition 2.0 was updated according to the changed structure of HDF-5 encoding in S-100 edition 4.0. The project team is trying to create test datasets based on the new structure. In order to create the test datasets, the team will use the SW library provided by HDF-5 group instead of ONSWG's one.

S-104 Tidal height

The KHOA project team figured out that the S-104 has not been updated, but the team is planning to create S-104 test datasets according to revised structure of HDF-5 encoding. KHOA maintains the Tide-bed system for tidal height and it will be used as source data to create S-104 test datasets.

S-111 Surface current

S-111 project team of TWCWG updated the product specification and test datasets. The S-111 test dataset consists of 4 types which are moving platform, fixed observation station, regular grid and irregular grid. Since the S-111 product specification was updated considering the revised structure of HDF-5 encoding in S-100 edition 4.0, KHOA will produce the test datasets based on the revised structure. In order to create the test data, HDF-5 library will be used and the coverage of creating test data sets will be in line with the S-101 ENC.



Fig. 3 S-111 Creation of S-111 surface current test datasets.

S-122/S-123/S-127

NIPWVG developed the S-122 marine protected area and S-123 radio service and drafted the S-127 traffic management as product specification of S-100 based nautical publication. KHOA has planned to create test datasets for those specification in this year. S-100 simple viewer developed by KHOA in their test bed project contains a function of editing simple geometry and exporting in GML format. If feature catalogues for S-122, S-123 and S-127 is applied to the S-100 simple viewer, test dataset for each product specification can be created.

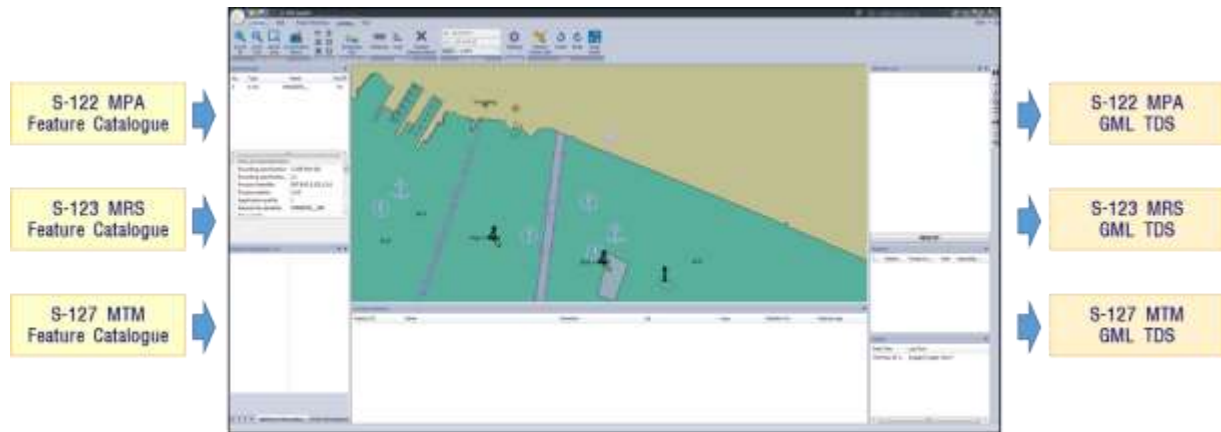


Fig. 4 S-100 Simple viewer developed by KHOA

KHOA is planning to create test datasets of S-122 MPA, S-123 MRS and S-127 MTM using the S-100 simple viewer.

Conclusions

KHOA has been creating test datasets for various S-100 based product specifications in their S-100 test bed project. The datasets will be tested by the S-100 test bed platform and the test result will be reported to next S-100WG meeting.

Action Required of TSM

The TSM6 is invited to:

- a. note this document
- b. discuss the issues raised in this document