S-100TSM6_6.1.a

Paper for Consideration by S-100 TSM

KHOA S-100 Test Bed Platform

Submitted by:	Rep. of Korea (KHOA)
Executive Summary:	This paper describes S-100 Test bed platform designed and been developing by KHOA
Related Documents:	S-100 4.0, 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 S-100 development of IHO and e-Navigation of IMO. One of research topics is the development of S-100 test bed platform. This paper describes S-100 test bed platform designed and been developing by KHOA.

Analysis/Discussion

S-100 test bed project of KHOA includes design of production process, pilot production, verification by S-100 based product specifications. The S-100 test bed platform designed by KHOA aims to verify the test datasets and support the project specification development of IHO working groups and project teams.

KHOA has been involved in the development of S-100 standard infrastructure and tools. From the experience, the S-100 testbed platform was designed. This testbed platform was considered to verify feature and portrayal catalogue, test datasets (Encoding: 8211, HDF-5, GML) and interoperability catalogue via S-100 Viewer.

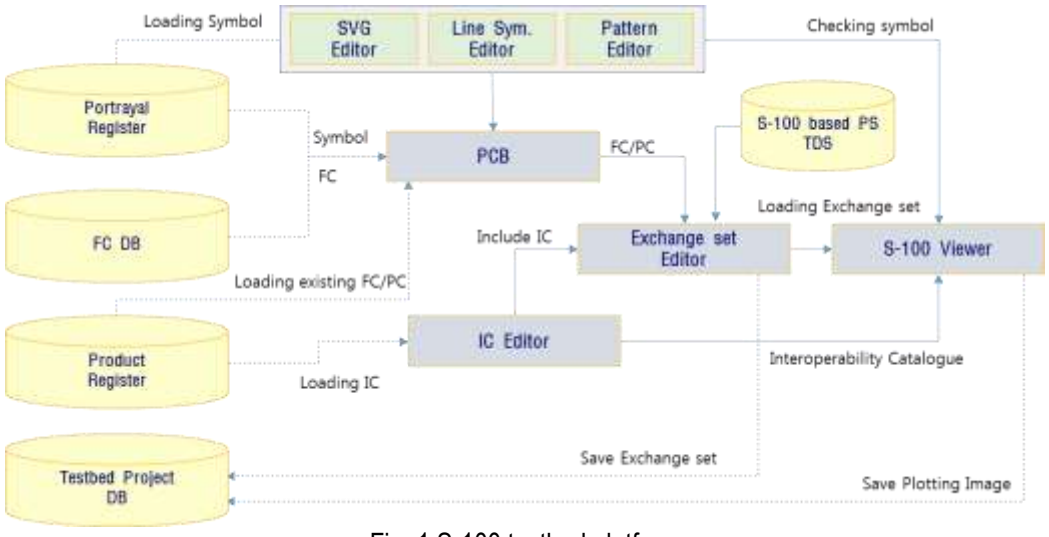

Fig. 1 S-100 testbed platform

Also, datasets and screen shots tested by S-100 Viewer is stored in the testbed project DB of S-100 Registry, which can be used to review the test results at a later date and shared with other projects.

KHOA has developed a S-100 navigation system to test the pilot production data in the sea area environment which was created according to S-100 based product specifications (2016, 2017) and the research team is developing the S-100 navigation system connected to the ship simulator in order to test it in the office without going to the sea area.

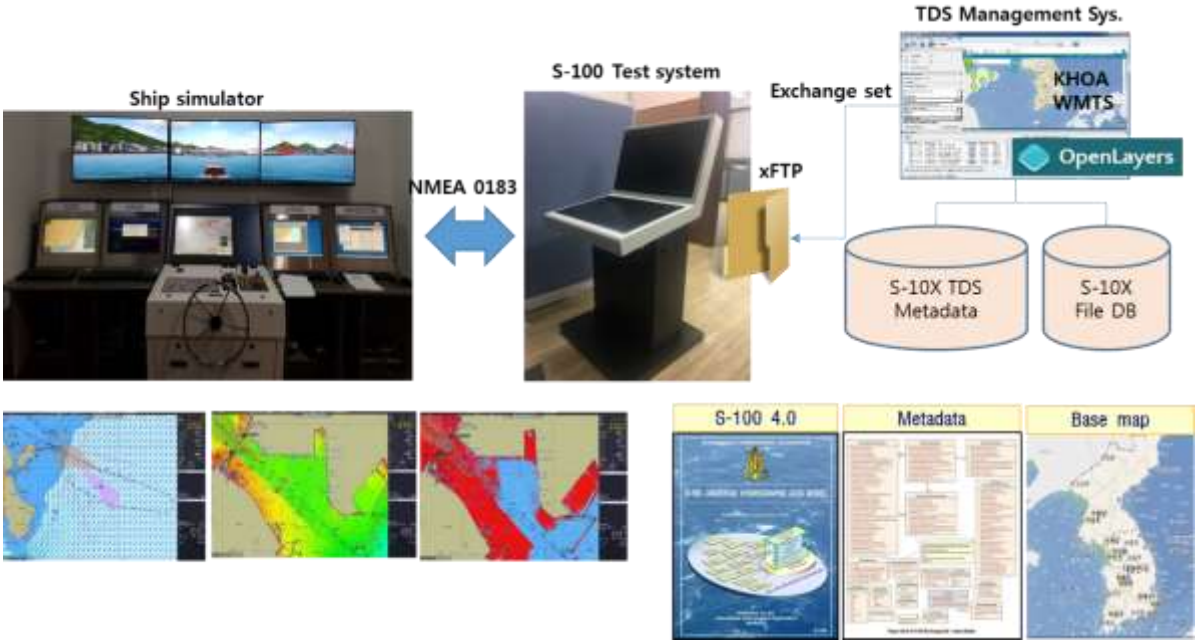

Fig. 2 Ship simulator based S-100 test system

Especially, this system has a separate environment that can manage S-100 based test data, and it can manage various test data together with metadata in database. The test data is packaged as exchange set in the management system. The test results is saved in the database and can be replayed in the future.

Conclusions

KHOA has been developing S-100 testbed platform and test system connecting to the ship simulator in order to support S-100 test bed project of IHO and verify test datasets by KHOA.

Recommendations

HSSC9 endorsed below action in relation to the S-100 test bed.

HSSC9/17 - HSSC endorsed the Test Bed Platform as the mechanism to be used by developers of S-100 based Product Specification for the IHO and other interested domain owners.

HSSC endorsed that the S-100 test bed platform is used by product specification developer in the development process. The nine-phase S-100 test framework focuses on the establishment of S-100 infra structure and S-101 development. After developing the S-100 infra structure and S-101 ENC product specification, a testbed platform should be designed and available for S-100 product specification developer to use.

Therefore, KHOA suggests a discussion about whether S-100 test bed platform needs to be designed and if the need is agreed, it's invited to consider the research results of KHOA.

Action Required of TSM

The TSM6 is invited to:

a. note this document

b. discuss the issues raised in this document