[S-100WG6-8.5_INF]

Paper for Consideration by S-100WG6

Report of S-1OOP Project

Submitted by:	Republic of Korea (KHOA), S-1OOP CG
Executive Summary:	This document reports the results of the last S-1OOP meeting.
Related Documents:	S-100, S-98, S-XXX Product Specifications, TSM8-5.3, S-1OOP CG1
Related Projects:	S-100 Open Online Platform Project

Introduction / Background

1. The primary goal of S-100 is to support a greater variety of digital hydrographic data sources, products, and stakeholders available. However, the development of the S-100 standard has been difficult for supporting various use cases with limited participation from only a few S-100 experts and industry partners. A gateway to the S-100 world is needed for different potential users and developers.

2. Following the approval by the HSSC of a KHOA's proposal to set up the S-100 Open Online Platform (S-1OOP) and its Correspondence Group under the TSM/S-100WG, KHOA held the 1st and 2nd meetings of S-1OOP. This document reports the contents and key results of the last S-1OOP meeting.

Analysis/Discussion

2nd S-1OOP meeting

3. The 2nd S-1OOP meeting was held on 23 November 2021 as a VTC, and the preparation status of tools for each theme was reviewed.

- Theme 1: KHOA Web Viewer
- Theme 2: Wiki page for S-100 tools
- Theme 3: Open source management of S-100 Viewer

4. KHOA proposed the Web Viewer as a tool to address the Theme 1, and introduced the main functions of the Web Viewer that can check the S-XXX TDS on a web basis.

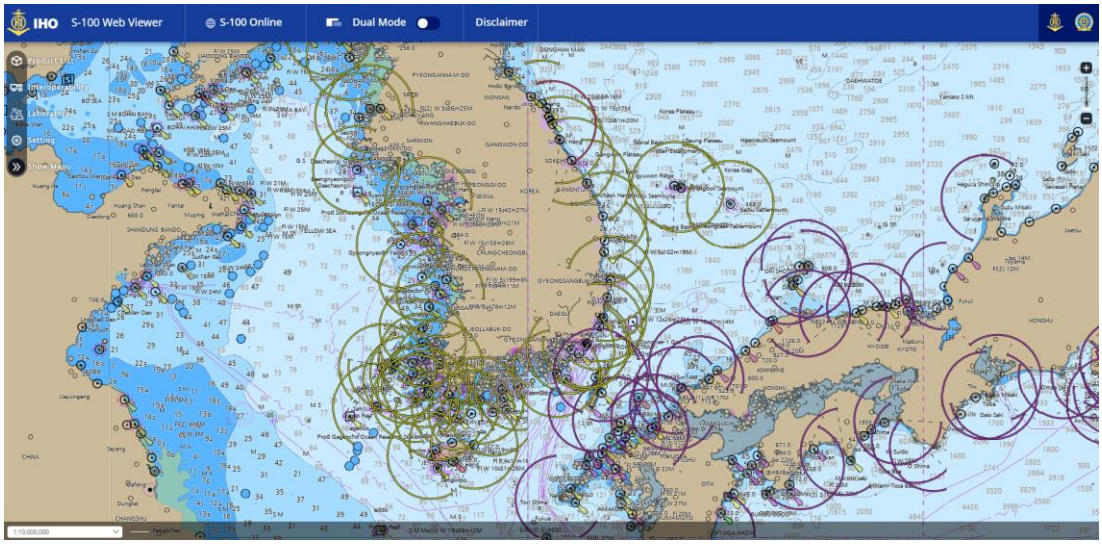

Fig. 1. KHOA Web Viewer

5. The KHOA Web Viewer supports the registration of S-10X FC/PC and applies the S-XXX TDS as a system to visualize them and share them. In addition, there is a dual-mode function to check the Interoperability Catalogue and the TDS by dividing the screen into two.

6. The KHOA Web Viewer includes a laboratory menu to review the S-XXX TDS from various perspectives and is currently under development. It has AIS data display, vector plot display of surface currents, route setting and simulation funtions. It can be expanded to include items discussed and verified by the S-100 WG and its subsidiary PTs.

7. The 1st S-1OOP meeting discussed the Wiki platform for sharing tools and information related to S-100. The S-100 tools are divided into distribution, production, protection, storage, and quality. Each page may include the introduction, purpose, type, and download link of the S-100 tools. As a use case of the Wiki page, production tools were suggested and their page was introduced for each S-100 encoding type (ISO/IEC 8211, GML, and HDF-5).

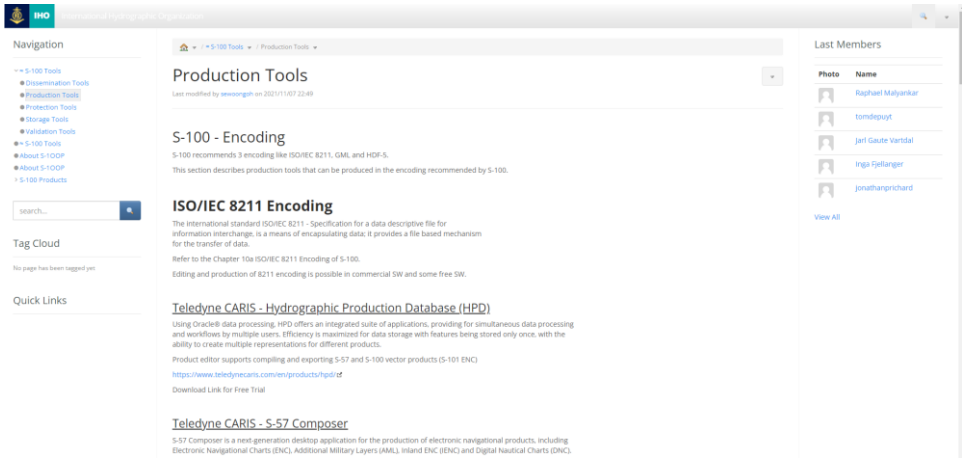

Fig. 2. Wiki page for Theme 2 – Data production and protection scheme

8. The 3rd theme of S-1OOP is the open source management and operation of the KHOA S-100 Viewer, and KHOA is preparing to convert the existing KHOA S-100 Viewer, which has been released to the IHO community, to an organized and clean open source, and will announce the open source according the following schedule:

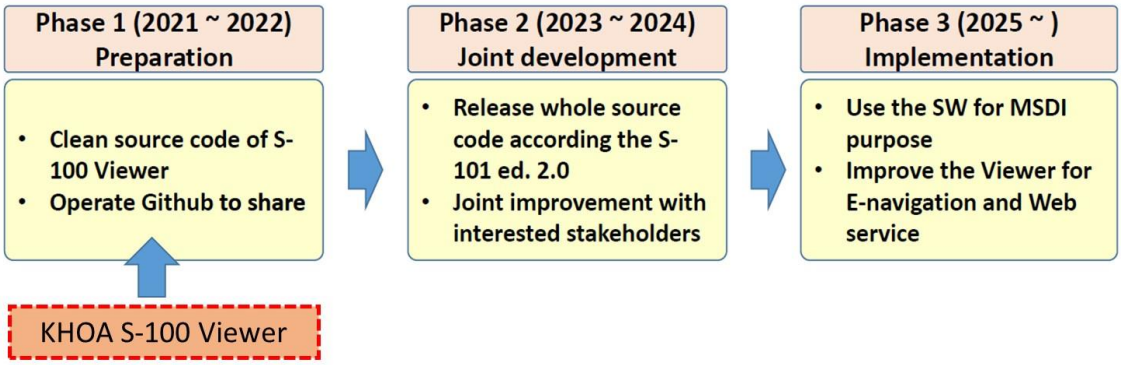

Fig. 3. Open source strategy for KHOA S-100 Viewer

9. In January 2022, the KHOA S-100 Viewer which can load and display S-101 ENCs will be released as an open source, and it is planned to relased supporting HDF-5 and GML encoding by the end of 2022. The open source KHOA S-100 Viewer will be shared on Github, and when the preparation is completed, KHOA plans to find contributors for joint development to test S-100 Ed. 5.0.0, S-101 Ed. 2.0.0, and the S-164 TDS.

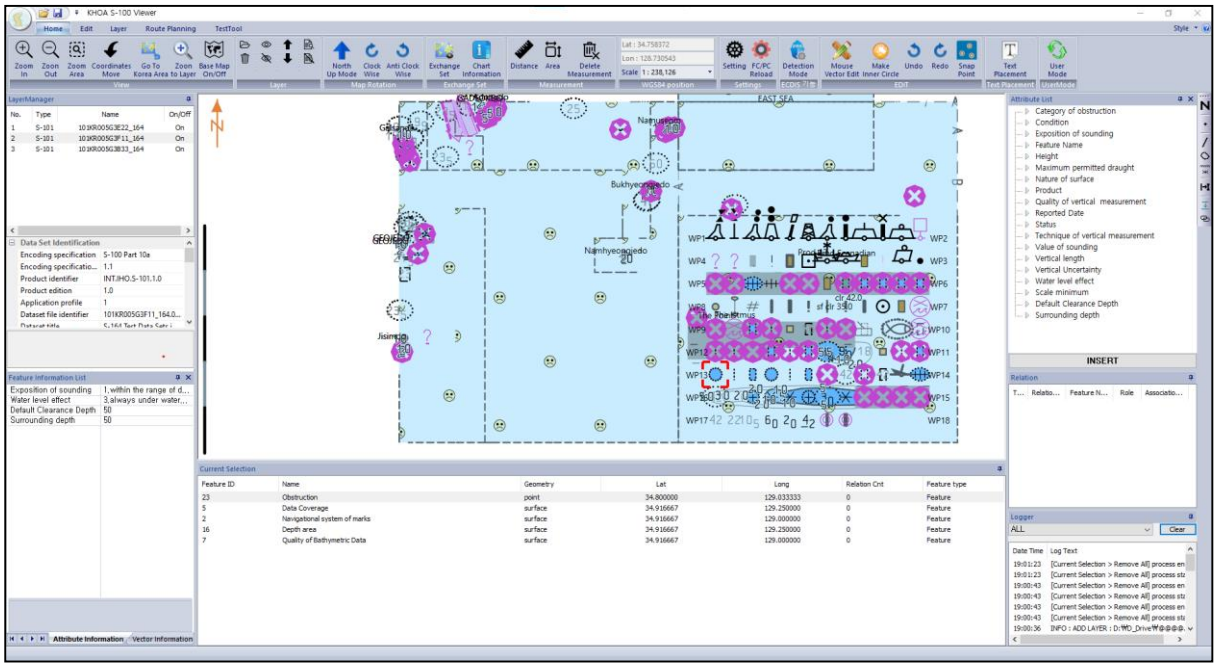

Fig. 4. KHOA S-100 Viewer

10. The 2nd S-1OOP CG meeting reviewed the preparation for the Themes 1, 2, and 3 and discussed the followings:

Number	Discussion results	Note
1	Sanity check required when loading S-XXX TDS in Web viewer (The sanity check for S-XXX TDS is to check the relationship between the metadata and components like dataset and support files under the exchange set.	Action needed
2	When applying S-XXX TDS, it should be usable not only in exchange sets but also in individual TDS, and agreed that S-XXX exchange set is the final goal.	Agreed
3	Request to download TDS provided in Web viewer, additional review and consultation on TDS sharing will be followed.	Action and Discussion needed
4	S-164 TDS is essential for checking S-100 standards and technical topics.	Agreed
5	When displaying dynamic surface current symbols, windy type display is intuitive and user preference is high, but it is necessary to review whether application is appropriate.	Action and Discussion needed

6	Need of separate pages for public and developers when composing wiki pages.	Discussion needed
7	Plug & Play should be supported for S-100 Viewer and open source, and it was discussed that a scenario and TDS to test it were needed.	Discussion needed

Action Required of S-100WG

The S-100WG is invited to:

a. note the activities of S1OOP Project

b. provide any comments for the project