

Paper for Consideration by S-100WG5**S-100 Open Online Platform (S-1OOP)**

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Executive Summary:	This paper proposes to establish S-1OOP project to utilize S-100 data for various purposes as well as navigational purpose and calls for participation.
Related Documents:	S-100, S-10X PSs, S-100 Implementation decade
Related Projects:	S-100 Test Bed Project

Introduction / Background

The IHO has developed a new foundation standard, S-100 Universal Hydrographic Data Model, to replace S-57 and has focused on developing S-100 based Product Specifications including the S-101 Next-Generation Electronic Navigational Charts and S-102 Bathymetric Surface which will be mainly used for navigation purposes. The main achievements so far are S-100 standard 4.0.0, the GI Registry and Catalogue Builders as the infrastructure systems, and developing Product Specifications such as S-101, S-102, S-111, S-122, S-123, and S-127.

The ultimate goals of S-100 are to develop and produce a range of the PSs and ensure that data is used not only for navigation purposes but also for various purposes both online and offline.

However, the development of the S-100 standard has been difficult for supporting various use cases as only a few S-100 experts and related industry partners which are mainly involved in hydrographic survey, nautical products and navigational equipment have been participating in this development.

This paper proposes to introduce the concept of sharing and cooperation to facilitate entering into the S-100 world by establishing an S-100 Open Online Platform (S-1OOP) as one of the alternative approaches to overcome these challenges.

Analysis / Discussion**What is S-100 Open Online Platform (S-1OOP)?**

The S-100 Open Online Platform (S-1OOP) is defined as "the Online Oceans." It means that it is the foundation for moving the ocean activities to the online world by sharing it easily and conveniently to foster a safer and more prosperous ocean.

The S-1OOP project refers to collaborative projects to achieve key goals with a vision as defined below:

Project Vision

The S-100 Open Online Platform (S-1OOP) will create the foundation for a marine ecosystem where stakeholders can share data, information, and service in an efficient and secure way to facilitate the development of S-100 systems and services and marine products. Such ecosystem will be used to support S-100 implementation and prepare future services.

Key Goals

- Share S-100 components of the GI registry and S-100 Data Sets
- Exchange S-100 production process for data producers
- Enhance visualizing and searching the standard and technical guideline
- Develop open-source software and ocean application models for implementing the S-100 world
- Increase efficiency and reduce industry cost related to developing S-100 systems and services

This S-1OOP project is expected to deliver the following four outcomes:

Deliverables

- S-100 Online interface (Open API)
: Develop open APIs to share data stored in S-100 registry. The purpose of this API is to help various systems or services conveniently utilizing S-100 source data.
- Online Platform
: Platform for sharing activities and data from S-100P projects and provides opportunities to test and experience new S-10X products or services for standard developers, data producers, service providers and others. It also provides a platform for sharing S-10X production process among data producers.
- Smart- DRT
: DB for standard or guideline documents for various users with more enhanced way of displaying and referencing documents.
- Core S-100 library
: Develop open source Tools or S/W for S-100 systems or services.

Organization

The S-100P project is for IHO Member States and relevant stakeholders. Therefore, in order to achieve the vision and the goals it is required to establish a group from many contributors and supporters.

IHO's activities in general are contributed by Member States and experts. Considering this reality, it is not easy to obtain funding from the IHO to build the S-100 Open Online Platform.

To achieve the basic concepts of sharing and cooperating, the S-100P project can be built entirely with voluntary participation and contribution.

Conclusion / Recommendations

The S-100P project asks for active participation from interested Member States, experts and industry partners to accelerate the use of marine data for various purposes, both online and offline, as well as for navigation purposes.

Actions Required of S-100WG5

The S-100WG5 is invited to:

- a. **Note** this paper
- b. **Discuss** the concept of S-100 Open Online Platform
- c. **Invite** MSs, experts and industry partners to participate in the S-100P project