

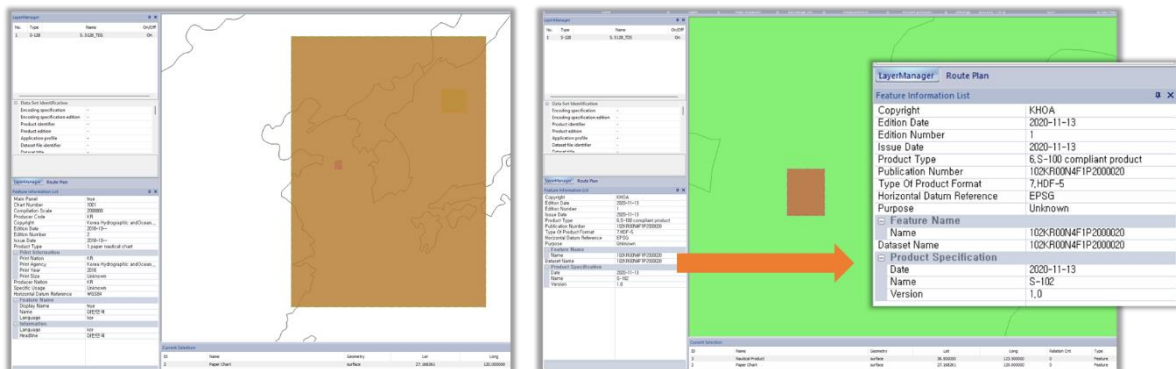
Paper for Consideration by WENDWG14
Report on the Development of S-128 PS

Submitted by:	ROK(KHOA), NIPWG(Chair), KRISO
Executive Summary:	Work status of S-128 product specification development and validation.
Related Documents:	S-100, S-128
Related Projects:	KHOA S-100 testbed project

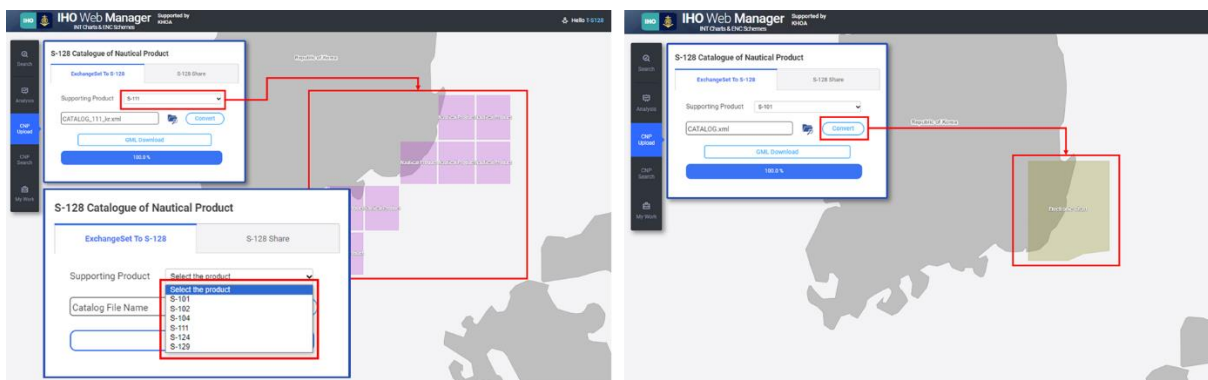
Introduction/Background

Work Status of S-128 Product Specification

The S-128 (catalogue of nautical products) standard was developed to manage the list of navigational publications and data. However, considering the importance of the S-100 standard and ECDIS support, the purpose has now been extended to the standard for managing and distributing information in all possible hydrographic data of maritime service.



S-128 1.0 was first released in 2022 May, and now version 1.2.0 is released through data model update and ANNEX (FC, PC) production. In order to verify how S-128 best can act as a hydrographic information catalogue, INTOGIS was improved and the S-128 data generation function was added. Feedback was provided by Canada, Australia, the UK, and Korea, on the results of generating and verifying S-128 data in GML format using the INTOGIS webtools at the S-128 VTC meetings. In the process, the function of INTOGIS was improved by the KHOA team using the information received from the users.



Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

NIPWG has been holding monthly VTC meetings since October to advance the S-128 development and meet HSSC deadlines for Edition 2.0.0. Multiple focus VTC meetings held to advance topics such as product classification and progress data model revisions needed to support critical functions for Phase 1 of S-100 implementation.

Analyses/Discussion

2 main functions of S-128 are being finalized

Support ECDIS up-to-dateness to allow S-100 products in the ECDIS system database to be verified against latest available product status.

Support product discovery for route planning, including where S-10x products are not available and traditional products must be used to meet carriage requirements

The figure below shows the feature classes for achieving the main functions. These are S100Service for describing services issuing data, especially services for S-104 Water Level forecasts, S-111 Surface current forecasts and S-124 Navigational Warnings.

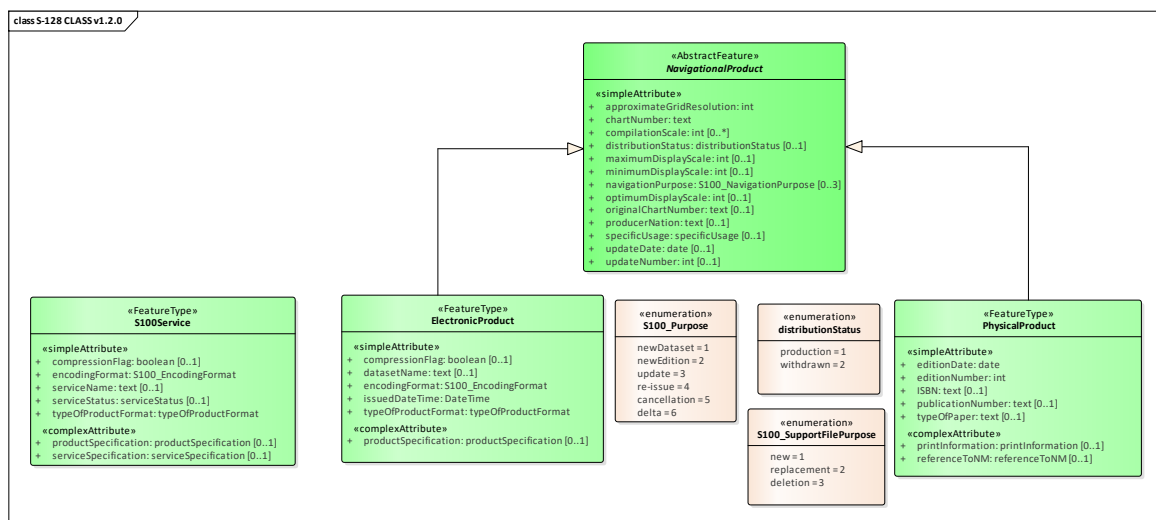


Figure 1 - Extract from S-128 Ed. 1.2 data model

Major changes from Ed 1.0.0

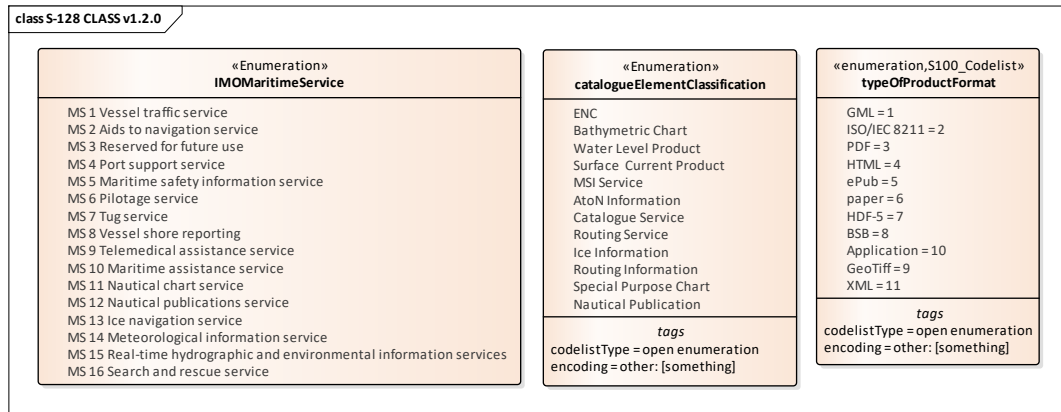
A significant addition to the S-128 model is the ability to capture information on the time interval of a product or service. This was added in consideration of the case where the issuance cycle differs from country to country, like S-111 surface currents, and may be more frequent than what is a practical update cycle of S-128. For example, if the issuance cycle is every 8 hours, S-128 can describe the issuing cycle and systems can use this to calculate when new data should be available for use without having to receive an updated S-128 catalogue with the data every time.

Addition of services as a class to describe MSI services, near-realtime water level services, near-realtime surface current services, etc. The products features have been simplified to be either electronic product or physical product.

Addition of optional elements to describe the carriage requirement rules for a product to help users understand their obligations better.

Product categories have been simplified with a high-level category enumerated list added.

Optional mapping from S-100 products and services to maritime service added to help link with IMO's e-navigation concept. This should be done to help explain what products are equivalent to the examples of carriage requirement nautical services listed in SOLAS V, which is a high priority ask from industry.



Action required of WENDWG14:

The WENDWG14 is invited to:

- a. note the NIPWG activities of S-128 product specification development and validation.
- b. review and submit comments about S-128 product specification.