

## Paper for Consideration by S-100WG

### Review of the Status of the S-111 Product Specification

<b>Submitted by:</b>	TWCWG
<b>Executive Summary:</b>	The draft of the S-111 product Specification for Surface Currents has been under development for some time and has reached a mature stage. The TWCWG would like to get a review of the present document, and to receive guidance on which sections need to be added and/or improved. Also, there are several S-100 issues that need to clarification before further progress can be made.
<b>Related Documents:</b>	The S-111 Product Specification, draft 1.8
<b>Related Projects:</b>	None

#### Introduction

The TWCWG, and previously the SCWG, has been developing and internally reviewing the draft S-111 Product Specification for Surface Currents for nearly three years. The TWCWG believes that the product specification needs to be reviewed by the S-100 WG to provide guidance to the TWCWG, and to identify areas in the document where additional information is needed. In addition, a few specific topics would be improved greatly with more specific guidance from the S-100WG.

#### Analysis / Discussion

The Surface Currents Product Specification document has been under development by members of Tides, Water Levels, and Currents Working Group. So far, the document has been primarily focused on technical details such as the formatting, transmission, and portrayal of surface current data. (It is also herein assumed that HDF5 has been accepted as a standard S-100 format for data exchange) One unique challenge arises from the fact that product datasets for each of several regions are likely to require the release of new editions several (or, in the case of near-real-time data, even hundreds) of times per day.

The Surface Currents Product Specification document would greatly benefit from a formal review by S-100 WG. The entire document needs to be read, with special regard to conformity to S-100 standards, formats, and essential components of a product specification document, and for the document's relationship to other S-100 compliant products and documents. Although TWCWG has limited expertise in S-100 principles, it cannot always keep abreast of the changes and intricacies of the standards process. Plus, some of the standards appear not to have been finalized.

## **Actions requested of the S-100 WG**

1. Review the S-111 Product Specification, Draft 1.8. Provide feedback and comments to the TWCWG by June 2016, including determination of what is missing, and what needs to be changed.
2. Provide further guidance on the harmonization of the variable names used for Surface Currents with existing S-100 variables.
3. Provide revised UML schematics where relevant.
4. Provide guidance on defining spatial quality (Clause 4.3.4.1 in the S-111 Product Spec) for coverages. Since grids and points set coverages are used in S-111, can spatial quality for individual points be used?
5. Provide a standard for naming Exchange Datasets (Clause 11.2). Is 'S111\_ExchangeSet' sufficient for all Member States, updates/editions, and regions? For Surface Currents, there is likely to be several Exchange sets per day per geographic region, each containing one or more data products. How does the Data Product name relate to the Exchange Dataset name - or does it even matter?
6. Give assurance that the proposed currents vector display methodology is compatible with all other existing and proposed S-100 compliant symbols, and establish a priority for currents symbols in relation to other symbols.
7. Determine to what extent user-selected input will be accepted. For example, a user may want to customize the colour scheme, the limits in the categories of currents in each step, or insert ship track information. Will there be different options for different platforms?