Paper for Consideration by TSMAD28/DIPWG6

S-100/S-101 Test Bed Update

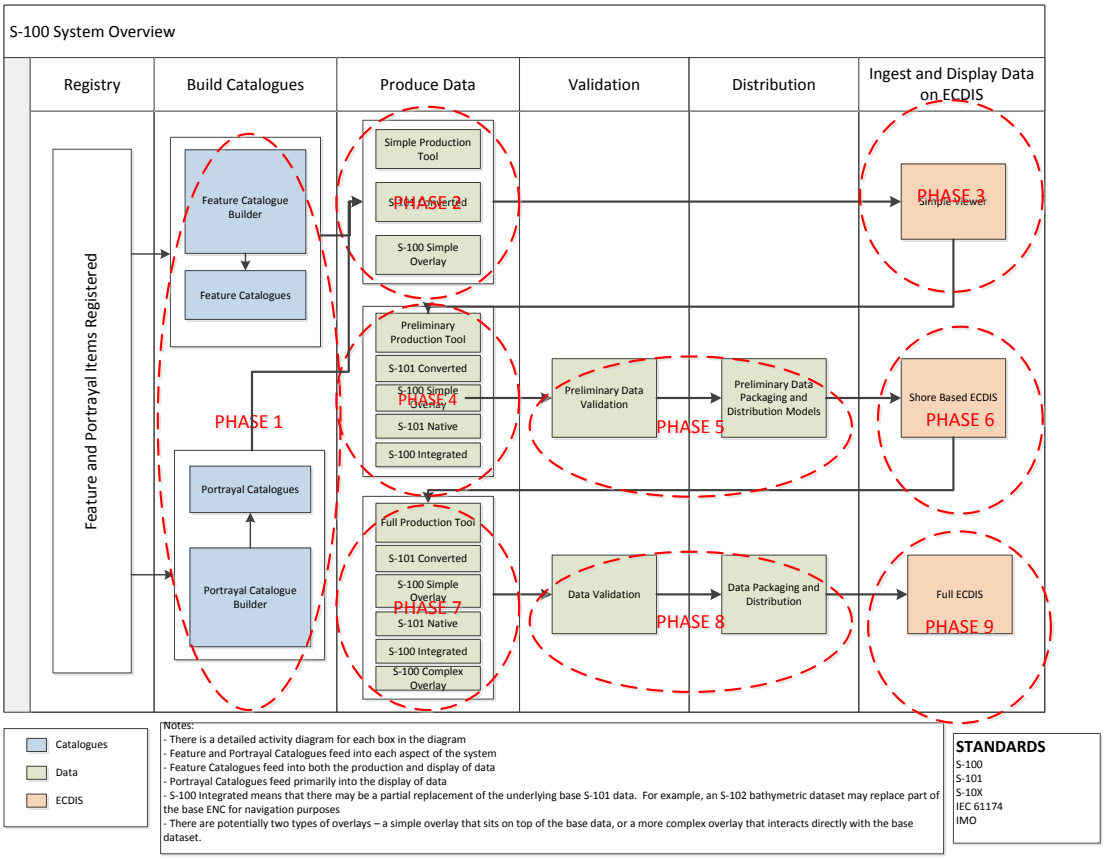
Submitted by:	TSMAD Vice Chair
Executive Summary:	This paper provides a brief update on the S-100 test bed.
Related Documents:	S-100, S-101
Related Projects:	S-101

Introduction / Background

At TSMAD28 the S-100 test framework was presented to the plenary. The framework outlines the overall approach to testing product specifications based on S-100 from development of the relevant feature and portrayal catalogues all the way through proper display on type approved ECDIS systems.

It should be noted that not all product specifications have go through every phase of the outlined testbed. For example, because the intent of S-101 is to eventually replace S-57 ENCs on type approved ECDIS systems the test process for that product specification would be more rigorous than a product specification that was developed to conform to S-100 but the end goal is not for use on a "front of bridge."

The S-100 system overview is as follows:



Analysis/Discussion

In order to properly conduct the test bed numerous components must be put into place and will require many resources. At a high level these components can be broken out as follows:

1. Test Documentation
2. Test Systems
3. Test Results

Test Documentation includes the S-100 test framework, test cases for each component of the framework and test datasets.

Status: The test documentation has been drafted for the first three phases of the S-100 testbed. In addition, the IHO is in the process of letting out a tender to develop the test cases for the first three phases of the test bed in addition to specific test cases for S-101. In addition, TSMAD will need to being focusing on providing the appropriate test data for the S-100 testbed.

Test Systems include the necessary software and/or hardware components to build S-100 compliant feature and portrayal catalogues, test data and viewers. Eventually this would include software that is as close to a type approved ECDIS without having to go through the type approval process.

Status: The following systems are currently under development for the S-100 testbed.

- S-100 Feature Catalogue Builder – KHOA has volunteered to modify their prototype feature catalogue builder to build the first iteration of the S-101 feature catalogue.
- S-100 Portrayal Catalogue Builder – The development of this has been funded under an IHO contract and will be demoed at TSMAD28/DIPWG6
- S-57 to S-101 Convertor – The development of the open source convertor has been funded by NOAA. It will need to be modified to be able to convert other S-57 based test data to the S-100 format.
- S-100 Simple Viewer – both KHOA and SPAWAR have developed or are developing simple viewers to be able to ingest and view S-101 data that will utilize the S-101 feature and portrayal catalogues.

Test Results are the results of the tests that have been developed to see if the product specification is acting as designed and if any modifications are needed.

Status: There are no test results to report as TSMAD is still developing the test documentation and systems before it can achieve any results.

Conclusions

Currently, TSMAD has only focused on the first few phases of the S-100 test framework, but it will need to continue to move forward and develop test documentation and test systems to fulfil the rest of the S-100 testbed. Therefore it is recommended that another S-100 testbed strategy workshop be held in the fall to review the draft test cases that were completed under IHO contract and to begin framing out the test documentation for the later phases of the S-100 test strategy.

Action Required of TSMAD/DIPWG

The TSMAD/DIPWG is invited to:

a. note the progress on the S-100 Test bed
b. agree to hold a workshop for the S-100 test bed sometime in the fall.