S-100/S-101 Test Strategy Development Meeting

RTCM Headquarters, Arlington, Virginia
September 16- 18, 2014

Meeting Minutes

The following is a brief summary of the S-100/s-101 Test Strategy Development Meeting.

S-100 Review
S-100 was sent out for stakeholder review and comments were received from the following member states and expert contributors: United States (NOAA,United Kingdom, Furuno and Jepessen. The comments were adjudicated during this meeting and S-100 edition 2.0.0 was finalized for submission to HSSC.

Feature Catalogue Builder
KHOA presented a status update of the Feature Catalogue builder. As a result of review prior, there were a few remaining issues that needed in-depth discussion, which are the following:

- Extra elements are present in the catalogue which are not covered by the model. i.e. fc:catalogInfo and fc:dataSetAttributes.

Resolution: It was decided that the fc:catalogInfo tag can be removed from the feature catalog as well as the fc:dataSetAttributes.

- The FCB has the ability to export the feature catalogue as database tables which can then be uploaded to the registry and then be made available for use by the Portrayal Catalogue Builder. It was noted that the FC utilized the concept of listed values versus permitted values (meaning that during the attribute binding process the list of allowable values may be reduced) and that particular table was not in the registry and that the portrayal catalogue builder may not be able to read them.

Resolution: BG met with Hugh Astle, Yong BAEK, and Dr. Seewong OH to disucuss how this table will be constructed and used. BG will also need to speak with the chair of DIPWG regarding an engineering change proposal to incorporate this concept in the PCB. At this time it is unknown if the permitted values in the FC will break the PCB.

Resolution: It was also decided that KHOA would produce one more feature catalogue that removes the catalogueInfo tag and the datasetAttributes. Once this was completed then the group decided that the catalogue was stable enough for testing purposes.

The group commended KHOA on the great amount of effort that they have put in to develop the FCB.

Review of the S-100 Registry and FCB
KHOA reported on a review of the S-100 database structure that they undertook as part of the FCB development work. Another part of the discussion was how will the FCB created by KHOA eventually link up to the IHO Registry and how it can be made available to other organizations that are developing S-100 based product specifications. The consensus was that prior to

establishing the live connection, we needed to wait until the IHO Registry was moved to a Linux Server (estimated to happen in the next two months).

Portrayal Catalogue Builder Update
The Chair of DIPWG reported that there have not been any new developments of the PCB and that they were waiting on TSMAD to finalize the feature catalogue prior to commencing any further testing. In addition, it was noted that the PCB will need to be updated to the latest edition of S-100 as the Portrayal model has been updated since the initial proposal was tendered.

S-57 to S-101 Convertor Update
ESRI presented an update on the S-57 to S-101 Convertor. They noted that there was still some development work that included the following activities:

- Implement the new bridges model
- Implement the calculation of the system attributes
- Implement the setting of the display scales
- Investigate the feasibility of converting update patches

They stated that the convertor should be ready by the February 2015 TSMAD meeting.

In addition, the group discussed whether it was necessary to have the convertor apply updates as by the time S-101 was finalized the ENC production systems should be able to write out S-57 and S-101 data including updates.

Furuno noted that if the convertor was going to be used to deliver S-101 data to the public for use then it needed to be able to do the update patches – otherwise S-57 data that was converted using the Re-issue method would be larger than normal S-57 data and the end-users might not switch because it would be more costly to download converted S-101 over satellite.

S-101 Simple Viewer Status and SVG Review
KHOA then presented the simple viewer that they have been developing. They have currently implemented the S-101 Feature Catalogue and have been prototyping test portrayal catalogues. They have also implemented functionality to compare the old S-52 .DAI symbol files against the new S-100 SVG symbols. It was noted that this comparison tool will prove useful in validating the correctness of the SVG symbols. They noted that there may be issues in displaying ARC information from SVG files using off-the-shelf SVG readers. **The chair of DIPWG took note of this issue and will investigate an alternative to using the ARC functionality in developing the colorfill for the SVG symbols.**

S-100 Test Framework Review – Phase 1-3
The group reviewed the existing test framework to identify any gaps. It was noted that phase 2 and 3 focused more on S-101 testing and needed to be expanded to encompass S-100 in genera. The group agreed to split phase 3 into three parts to concentrate on the following aspects of S-100.

- Phase 3A – Testing of S-100 product specifications that utilize the S-100 8211 encoding format
- Phase 3B – Expand the simple viewer to account for the new S-100 GML encoding

- Phase 3C – Further expand the simple viewer to account for gridded encoding such as HDF5.

Resulting Action: Julia Powell to update the framework document.

S-100 Test Framework Phase 4 Scoping
The group then proceeded to scope out the requirements for Phase 4. Phase 4 was originally titled preliminary production tool – but it was proposed that this be changed to preliminary S-100 Based Test Datasets, in order to eliminate the appearance that the IHO was attempting to build a production toolset and that the true requirement was for test data sets.

The group then proceeded to review the S-100 test dataset listing and make some suggested changes.

There was also continued debate on the multiple versus cumulative catalogue concept and that there needed to be a fairly refined list of scenarios for both. It was noted that S-100 MUST specify which type of catalogue scenario is to be used for product specifications and that if it is cumulative, then the feature catalogue model will need to be amended to "deprecate" the item that is no longer valid.

Resulting Action: Julia Powell to update the test dataset listing for distribution.

S-100/S-101 Test Cases
The group also reviewed the S-100/S-101 test cases and agreed with the approach taken and that these would be further extended as the test strategy is filled out.

Miscellaneous Discussion

It was pointed out that S-100 still needed to deal with the concept of a alerts and indications in a machine readable format.

Resulting Action: Hannu and Julia Powell to work on Alerts and Indications for S-100 ed 2.1.0

It was also brought up that the current iteration of specifications for gridded data (S-102) did not include a feature catalogue and that if the intent was for them to be used on an ECDIS then it would need to have a feature catalogue to convey the information.

Resulting Action: Julia Powell to inform the S-102 work item leader and the SCWG chair of this gap.

Number	Action	Who
TSM2/1	ROK to deliver FC 8.8 by first week of October 2014 which includes the removal of dataset attributes and the catalogueInfo tag and the database for Barrie to upload to the Registry	KHOA
TSM2/2	Upload the FC database into the registry the second week of October.	BG
TSM2/3	Need to determine the impact of table changes to the PCB.	CH

TSM2/4	PCB needs to be updated to S-100 edition 2.0.0	CH
TSM2/5	Create guidance on how the administration of the FCB will work using the registry logon tables (user tables)	BG
TSM2/6	Alerts and Indications for S-100 ed 2.1.0	HP/JP
TSM2/7	Need to develop guidelines or a product specification to state how ECDIS datasets are to interact with each other.	???
TSM2/8	Input all the new features/attributes/ennumerants into the register by February.	SM (Su Marks)
TSM2/9	Write a paper for the next TSMAD on how S-100 edition 2.1.0 handles dataset attributes and how that trickles down into the Product Specification.	JP/HA
TSM2/10	Update the test scenarios/dataset and framework per the discussion from this meeting	JP