## Paper for Consideration by S100WG01

## **S-100 Proposal Voting Summary**

Submitted by:	S-100 Working Group Chair
Executive Summary:	This paper summarizes the results of S-100 Working Group Letter 5/2015 which asked for members to vote on several proposals in advance of the
	meeting.
Related Documents:	S-100 WG L5/2015
	S-100
Related Projects:	N/A

#### Introduction / Background

In November 2015, the S-100 Working group sent out a letter asking working group members to assess proposals in advance of the meeting. Proposals that working group members did not have an issue with will be accepted and incorporated and those that had comments will be discussed at this meeting.

## Analysis/Discussion

The following table summarizes the results of the working group vote:

Paper Number	Question	Yes	No
2	Part 4a: Do you agree to add Tiff as a support file format?	DE, FI, FR,GB,IHB, IN JP, NO, PT SG, US, 2J, IC-ENC	
3	Part 4a: Do you agree to fix the invalid reference in part 4A?	DE,FI, FR, GB,IHB, IN, JP, NO, PT,SG, US, 2J, IC-ENC	
4	A: Part 9: Do you agree to add SVG as a profile to S-100?	DE, FI, FR, GB,IHB, IN, JP, NO,PT, US,2J, IC- ENC	
	B: Do you have any comments on the attached profile for SVG? If so please use the S-100 Comment form.	FR,GB,IHB, 2J	
6	A: Part 10c: Do you agree to add HDF5 as an encoding format to S-100?	DE,FI, FR,GB,IHB, IN, JP, NO, PT, US, 2J, IC-ENC	
	B: Do you have any comments on the attached profile for HDF5? If so please use the S-100 Comment form.	GB, 2J	
7	Cover Page: Do you agree to the proposed changes to the copyright notice?	DE, FI, FR,GB,IHB, IN, JP, NO,PT,SG, US,2J, IC- ENC	
8	A: Part 10A: Do you agree to the proposed modifications for 8211 SEGH?	DE,FI, FR,GB,IHB,IN, JP, NO, PT, US, IC-ENC	2J

	B: Do you have any comments on the attached modifications? If so please use the S-100 Comment form.	2J	
9	A: Part 5: Do you agree to the proposed modifications to include dataset attributes in the feature catalogue model?	DE,FI, FR,GB,IHB, IN, JP, NO, PT,SG, US, IC-ENC	2J
	B: Do you have any comments on the attached modifications? If so please use the S-100 Comment form.	FR,2J	

# Conclusions

Paper Number	Question			
2	Part 4a: Do you agree to add Tiff as a support file format?			
Result	Accepted			
Comment	From IHB:  Agree that tiff format should be added for the inclusion of picture files. Baseline Tiff (TIFF 6.0, Part 1) and its associated features needs to be well documented. If there is a need for using tiff for other purposes, it is proposed to discuss the inclusion of tiff extensions (e.g for compression or the use of private tags.  Do we want to consider other raster formats e.g. PNG which are better for encoding images that contain large areas of homogenous colour (e.g. diagrams) with sharp transitions between colours?  S100WG Chair: Notes the IHB's comments. Recommends that they submit an official proposal for adding PNG as a format			
3	Part 4a: Do you agree to fix the invalid reference in part 4A?			
Result	Accepted  S-100 WG Chair: GB offered two comments that were indirectly tied to this proposal. One was that Video and Other do not refer to specific encodings. The other was that codelists should be used in the metadata section. The chair invites GB to make a formal proposal for a specific video format and to update 4A to utilize codelists.			
4	A: Part 9: Do you agree to add SVG as a profile to S-100?			
Result	Accepted with comments			
Comment	From IHB:  (A) Agreed but propose that the title should be more specific e.g. "Profile for S-100 SVG Symbols"  S-100 WG Note: Two comments noted that this should be an informative annex. France noted that there should be some more examples and that a detailed list of the elements of the SVG Tiny 1.2 should be included.			
6	A: Part 10c: Do you agree to add HDF5 as an encoding format to S-100?			
Result	Accepted with Comments			
Comment	S100WG Chair: I have coordinated with the author of this profile to incorporate the comments brought up by GB and 2J.			
7	Cover Page: Do you agree to the proposed changes to the copyright notice?			
Result	Accepted			
8	A: Part 10A: Do you agree to the proposed modifications for 8211 SEGH?			
Result	Consensus was not reached			
Comment	S100WG: This will need to be discussed by the working group in plenary			
9	A: Part 5: Do you agree to the proposed modifications to include dataset attributes in the feature catalogue model?			
Result	Consensus was not reached			
Comment	S100WG: This will need to be discussed by the working group in plenary			

In addition, to the above France submitted an additional comment for general consideration:

S-100 foreword states that the standards can support "unlimited encoding formats". This is confirmed in 0-4.13.Part 10: "S-100 does not mandate particular encoding formats so it is left to developers of product specifications to decide on suitable encoding standards and to document their chosen format." and table 0-2 shows some examples of encoding formats.

Consequently, new formats will be used by and documented in product specifications without being initially listed in S-100 document. In order to be as close as possible to the actual practice, France suggests that the lists of formats "S100\_DataFormat" and "S100\_SupportFileFormat" in Figure 4a-D-4 (Part 4a – Metadata, Appendix 4a-D) be regularly updated in order to be as exhaustive as possible and avoid the use of value "other" for the format attribute.

Hence, we propose to add SVG and HDF5 as data formats. Tables "S100\_DataFormat" and "S100\_SupportFileFormat" in "Elements of the exchange set" will have to be coherent with Figure 4a-D-4.

Additionally, we suggest to add SVG to the list of abbreviations in 0-2.

If the working group agrees, in principle, to the above comment, the working group chair will work with France to develop a formal proposal and redline.

#### Recommendations

It is recommended that the following proposals be considered accepted:

Paper 8.2 - Part 4A TIFF

Paper 8.3 – Part 4A Invalid Reference

Paper 8.7 - Copyright Notice

In addition, the following papers will need to be discussed in plenary to come to a consensus:

Paper 8.4 – SVG Format

Paper 8.6 – Part 10C HDF5

Paper 8.8 - Part 10A 8211 SEGH

Paper 8.9 – Feature Catalogue Dataset Issues

#### Action Required of the S-100 WG

The S-100 is invited to:

- a. Note the paper
- b. agree that papers 8.2,8.3, and 8.7 are accepted
- c. further discuss the outstanding issues under papers 8.4, 8.6, 8.8, and 8.9

NOTE: Full comments start on the next page

Part 4a	GB	Proposal 1		te	Video and Other do not refer to specific encodings which could be implemented in software and tested in any meaningful way. Propose insert specific encodings instead.	Consider replacing other and Video with more specific values.	
Part 4a	GB	Proposal 1		te	Given that S-10 has adopted codelists within the GFM as an attribute type. It is logical and common practice to use them within the metadata sections also.	Change this section to use Codelists rather than enumerations where appropriate.	
5A	2J	Appendix 5-A	Figure 5-A-1 and Table 5-A-1	te	Agree with the ultimate goal of including some metadata in dataset headers, but there are many problems with trying to model this using the feature catalogue.  Dataset Attributes are out of scope of ISO 19110 (Methodology for feature cataloguing).  The new model allows ProdSpec authors to make any attribute in the GI registry a dataset attribute. It also allows complex attributes as dataset attributes. "Dataset attributes" should be restricted to metadata, not generic attributes.  Candidates for "dataset attributes" e.g., bounding box, issue date, update number, etc., are not defined in the GI registry.  More generally: The FC is supposed to just a catalogue of features, attributes, and their relationships (in S-100, also info types). Its scope does not include dataset structure or metadata even when embedded in a dataset. According to ISO 19110:  NOTE The full description of the contents and structure of a geographic dataset is given by the application schema developed in compliance with ISO 19109. The feature catalogue defines the meaning of the feature types and their associated feature attributes, feature operations and feature associations contained in the application schema.  So: Don't let the terminology drive the modelling. Instead of "dataset attributes" use a more precise term, e.g., "dataset embedded metadata." Let S-100 and product specifications define them as metadata elements in the metadata section, not "attributes"	Revert the changes pertaining to dataset attributes.  To represent "dataset attributes" one of the following methods can be used:  Define a unique information type whose attributes are the "dataset attributes". A dataset would have only a single instance of this info type and it would be the first information type in the dataset.  Alternatively: Update Part 11 to provide for product specifications to describe the structure of a dataset, including headers containing embedded metadata. The elements of "embedded metadata" can be described in the metadata section of a product specification, like other metadata.  If an XML file defining the "dataset attributes" is needed, that should be separate from the FC. Its format can be like the simple attributes part of the FC.	

				(which suggests binding to *objects* not to datasets).		
5	FR	5-4.2.3.1	te	Current wording states that Association roles only applies to feature types. Yet, Table 5-A-9 (S100_FC_InformationAssociation) states that this relationship can link 2 information types to each other.	In 5-4.2.3.1, delete "although the latter only applies to feature types".	
5	FR	5-4.2.3.2	te	Current wording states that attributes cannot be shared different instances. This is no more true with the inclusion of datastet attributes in the FC model. We imagine that datastet attributes will always be simple attributes and thus there is no need to add a naw paragraph for dataset attributes. However, 5-4.2.3.2 should be reworded.	sentence: "Unlike information types they cannot be shared between different instances. i.e, an instance of an attribute belongs to one and only one feature or information type, except for dataset attributes.".	
5	2J	4.2.5.1	ed	If the comment on the FC model in 5-A is accepted the changes in this clause are not needed.	Revert changes to this section to conform to the comment on changes to the FC model in 5A.	
Part 9	GB	Proposal 3	te	Suggest that the intent is for the SVG Profile to be implemented and supported in S-100 systems. Therefore GBR recommends that this annex be normative.	Make the proposed SVG profile a normative rather than informative annex.	
9-C	2Ј		ge	It is marked "informative" and yet the title says "SVG Profile" which means it is a subset of Tiny SVG 1.2. Since it is marked informative, technically that means portrayal catalogue developers can actually use anything in TinySVG.	Clarify whether this appendix is informative or normative.	
9C	FR		Те	France understands that the SVG profile that is submitted is the beginning content of the future profile.	Our view is that the final document will have to include the detailed list of the elements of SVG Tiny 1.2 specification that are retained (sub sets and specific metadata).  The chosen subset will have to be able to draw other elements than S-52 symbols (e.g. INT1 symbols).  To be more understandable, some examples could be accompanied with the picture of the symbol and a complete example (the symbol and the SVG file) should be provided.	
9-C	2Ј		ge	A complete symbol definition and an picture of the result would be highly informative.	Add a suitable example of a complete symbol definition in SVG and a picture of the result.	
10A	2Ј	10A-5.7.1 10A-5.7.2 10A-5.7.3 10A-5.7.4	te	For circles and arcs, the centre is a control point.  Note also that the new CAIC and CAFC differ only in the type of the coordinates of the centre.	Centre might be encoded in C2IL / C3IL / C2FL / C3FL like the control points of other curve segments, if this is done the remainder of CAIC / CAFC can be merged into one CAPM - "circle/arc parameters".	

10A	2J	10A-5.7.3 10A-5.7.4	te	There is no replacement for the field CIRC in Edition 2.0.0 which indicated whether the segment was an arc or circle. Representing a circle as an arc of angular distance 360.0 still loses some semantics and complicates conversion to formats which implement circles as circles i.e., differently from arcs.	Restore the CIRC field from 2.0.0 to the new CAIC/CAFC. If necessary, can leave SBRG and ANGL as now defined, even though that would be duplicative.  See also the other comment on this clause.	
10A	2J	10A-5.7	te	Any expectations about required elements for any interpolation types should be explicitly stated. Ref. July 2015 e-mail discussion about SEGH with no C2IL.	Expectations if any should be explicitly stated. End points for circles might be artificial or absent.	
10C	2Ј	new section	ed	Terms and acronyms should be defined somewhere.	Add a Terms, Acronyms, and Notation clause Define AlO (mentioned in 10C-4)	
10C	2J	all	ge	The current material is from at least 3 different sources and needs to be better integrated and generalized. S-100 should contain only concepts and items that would be common to all data products using HDF5. For example, common items probably include grid origins and extents, etc., but items like Elevation, depths of currents, depth corrections, tracking list IDs, are too product-specific.	Revise 10C to retain and integrate only the common concepts while leaving data-product-specific items for the individual product specifications.	
Part 10c	GB	Proposal 4	ed	Suggest the structure of the document is brought into line with that of the rest of S-100. Encoding Architecture begins A.1 but is not an appendix. Should A.3 API be informative (and placed in an appendix)	Reformat this section in line with the formatting of the rest of the S-100 document.	