Paper for Consideration by S-101PT10

Support file attribute S100_Purpose usage

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Executive Summary:	Paper looks at the S-101 ENC's Cancellation updates encoding indicating that the update is a cancellation update for its base dataset.
Related Documents:	S-101 v.1.1.0 PS
Related Projects:	

Introduction / Background

Extract from S-100 Part 17:

Figure 17-6 – S-100 Exchange Set Catalogue

The discovery metadata subsections have attributes which enable important information about the datasets and accompanying support files to be examined without the need to process the data, for example encryption/compression flags. Similarly, other Catalogues can be included in the S-100 Exchange Set, in support of the datasets, such as feature, portrayal, coordinate reference systems, codelists etc. Additionally, the S100 Exchange Set Catalogue provides mechanisms for managing the life cycle of datasets and support files. For example, the S-100 Support File Purpose enumeration within support file metadata provides revision control for support files.

More detailed information about the various elements of the Catalogue is shown in Figure 17-7 below and in the textual description in the Tables at clause 17-4.5.

Extract from S-101 v.1.1.0. section 11.3.3:

In order to cancel a dataset, an update dataset file is created for which the Edition number must be set to 0. This method is only used to cancel a Base dataset file. Where a dataset is cancelled and its name is reused at a later date, the issue date must be greater than the issue date of the cancelled dataset. When the dataset is cancelled it must be removed from the system.

Extract from S-101 v.1.1.0 Annex B:

B-7.1.1 Dataset Identification field - DSID

Subfield name	Label	Value	Format	Comment
Record name	RCNM	{10}	b11	{10} – Data Set Identification
Record identification number	RCID	{1}	b14	Only one record
Encoding specification	ENSP	'S-100 Part 10a'	A()	Encoding specification that defines the encoding
Encoding specification edition	ENED	"5.0"	A()	Edition of the encoding specification
Product identifier	PRSP	"INT.IHO.S-101.1.1"	A()	Unique identifier for the data product as specified in the product specification
Product edition	PRED	"1.1"	A()	Edition of the product specification
Application profile	PROF	"2"	A()	"2" – Update dataset profile
Dataset file identifier	DSNM		A()	The file identifier including the extension but excluding any path information
Dataset title	DSTL		A()	The title of the dataset
Dataset reference date	DSRD		A(8)	The reference date of the dataset Format: YYYYMMDD according to ISO 8601
Dataset language	DSLG	"EN"	A()	The (primary) language used in this dataset
Dataset abstract	DSAB	omitted	A()	The abstract of the dataset
Dataset edition	DSED	"0"	A()	0 – Indicates the cancellation
Dataset topic category	*DSTC	{14}{18}	b11	A set of topic categories

Extracts from S101 v.1.1.0. S100_DatasetDiscoveryMetadata attributes:

purpose	The purpose for which the dataset has been issued	1	S100_Purpose	0..1 multiplicity in S-100 restricted to 1 in S-101

12.1.2.3 S100_Purpose

Role Name	Name	Description	Code	Remarks
Enumeration	S100_Purpose	The purpose of the dataset	-	
Value	newDataset	Brand new dataset	1	No data has previously been produced for this area
Value	newEdition	New edition of the dataset or Catalogue	2	Includes new information which has not been previously distributed by updates
Value	update	Dataset update	3	Changing some information in an existing dataset
Value	reissue	Dataset that has been re-issued	4	Includes all the updates applied to the original dataset up to the date of the re-issue. A re-issue does not contain any new information additional to that previously issued by updates
Value	cancellation	Dataset or Catalogue that has been cancelled	5	Indicates the dataset or Catalogue should no longer be used and can be deleted

Analysis/Discussion

We trust that this mechanism was invented for S-57 only, and that this is a workaround because of then missing mechanism (metadata encoding), and that with the S-100 products being not only ENCs, we think that the cancellation of the datasets should be using the other attribute encoding than changing the Edition number to "0". This was a limitation to many producers, that the ENC names were prohibited to be re-used. But this was needed with that cancellation mechanism. Within the S-100 framework, if the Edition number is kept for the update, then firstly it helps the ENC management throughout all dataset management cycle for everyone involved – producers, distributors and ECDIS implementations. At the moment it is agreed that the ENC names can be re-used and the relyance for that at the moment is set to be only the Issue date.

We propose that instead of the above mechanism - encoding the DSID attribute Dataset edition to 0 ("0 - Indicates the cancellation"), now the encoding of Dataset Edition should keep the same edition number that is for the Edition of the base cell to be canceled (as per usual update encoding), and the cancellation status of the cancellation update would be indicated:

- firstly that the updates metadata attribute S100_Purpose would be mandatory encoded as *cancellation,*
- And secondly the update file as such would be empty (like it is now encoded for S-57).

S-57 now is planned for sunsetting. S-101 has greater options, including richer standardized mandatory metadata. The S100_Purpose is mandatory attribute and is captured now anyway. Taking that into consideration we suggest that we do not double encode the "cancellation" and do not take the workaround encoding into the new ENC PS - the S-101. With canceling the dataset the new way, there will be two ways to validate that the cancellation update is not to be used for the next edition of the cell. Although we understand that this would not be recommended to do so while the HO provides both format ENCs for the Dual Fuel period.

Conclusions
- By removing the workaround invented for the S-57 Product Specification - resetting the edition number to "0" for cancellation update - this part of metadata encoding then would become more harmonized with the cancellation of other Product Specification datasets within the S-100 series, like S-102, S104, etc.

Action Required of S-101PT10

The S-101PT10 is invited to:

Note the report and discuss proposed changes.