

Paper for Consideration by S-101PT10

Support file distribution

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Executive Summary:	This paper includes two considerations regarding the Support file management. <ul style="list-style-type: none"> a) To make it mandatory and state clearly in the PS that the first edition of the Support file must always be accompanied with a dataset file it refers to. b) To mandate the Support file's metadata - supportedResource and resourcePurpose
Related Documents:	S-101 v.1.1.0 PS
Related Projects:	

Introduction / Background

Below are extracts from the S-101 v.1.1.0 Product Specification:

11.2 Exchange Set

S-101 datasets are grouped into Exchange Sets. Each Exchange Set consists of one or more ENC datasets with a single Exchange Catalogue XML file containing metadata. Optionally, an associated XML Metadata file (S100_ResourcePurpose (ISOMetadata) – see S-100 Part 17, clause 17-4.5) may be included (see clause 11.5). It may also include one or more support files. The S-101 Exchange Set structure is the same as that described in S-100 Part 17, clause 17-4.1.

11.4.2 Support file management

When a support file is created or a subsequent version is issued it must carry its own issue date and be supported with a digital signature which authenticates it against the Producer's public key included in the Exchange Set metadata.

The type of support file is indicated in the "purpose" field of the discovery metadata. Three types: new, replacement and deletion are defined. Support files carrying the "deletion" flag must be removed from the system. When a feature pointing to a text, picture or application file is deleted or updated so that it no longer references the file, the system software must check to see whether any other feature references the same file, before that file is deleted.

Each support file required must be included only once in the Exchange Set.

- a) There have been discussions and concerns, if the Support file's first edition could be packaged alone in the exchange set without the accompanying dataset (at least one ENC or its update) that this support file is supposed to be used with.
- b) Another data management concern is the complication in Support file management at any implementation without needed metadata. This time the concern is the optional attributes *supportedResource* and *resourcePurpose*.

supportedResource	Identifier of the resource supported by this support file	0..*	CharacterString	Conventions for identifiers are still to be developed and will be defined later
resourcePurpose	The purpose of the supporting resource	0..1	S100_ResourcePurpose	Identifies how the supporting resource is used

Analysis/Discussion

If an exchange set with support file in its first edition is issued without an accompanying dataset file (ENC or its update), this can complicate the distribution management and the ECDIS implementations. In this scenario the distribution systems and ECDIS implementation must constantly “look for” the datasets that the Support files could be referred to. In particular there could be issues for ECDIS systems not using All ENCs installation (like PAYS), but only specific purchased ones. In the unrestricted implementation scenario, like now, all these systems would be expected to have all such support files, which as the most could be limited to the Specific Produces.

- a) We propose to consider adding a clarification text in the Product Specification, that the first edition of the support file must be always delivered with at least one dataset that it refers to. This clarification could be added to the 11.2 section.
- b) Secondly we propose to make mandatory the S100_SupportFileDiscoveryMetadata attributes *supportedResource* and *resourcePurpose* mandatory, and use the newly agreed by TSM9 S-100 standard concepts for their population, e.g. the *resourcePurpose* list has been shortened, and the input to the *supportedResource* is to be in the file URI.

Conclusions

- If the above a) and b) are implemented, then the distribution of the unintended Support files to the end user systems are eliminated. There would be no possibility of “hanging” Support files in the system.
- Also the implementation of support file management throughout production, distribution and end user systems could be standardized and can then be automated to a much higher degree.

Action Required of S-101PT10

The S-101PT10 is invited to:

Note the report and discuss proposed changes.