

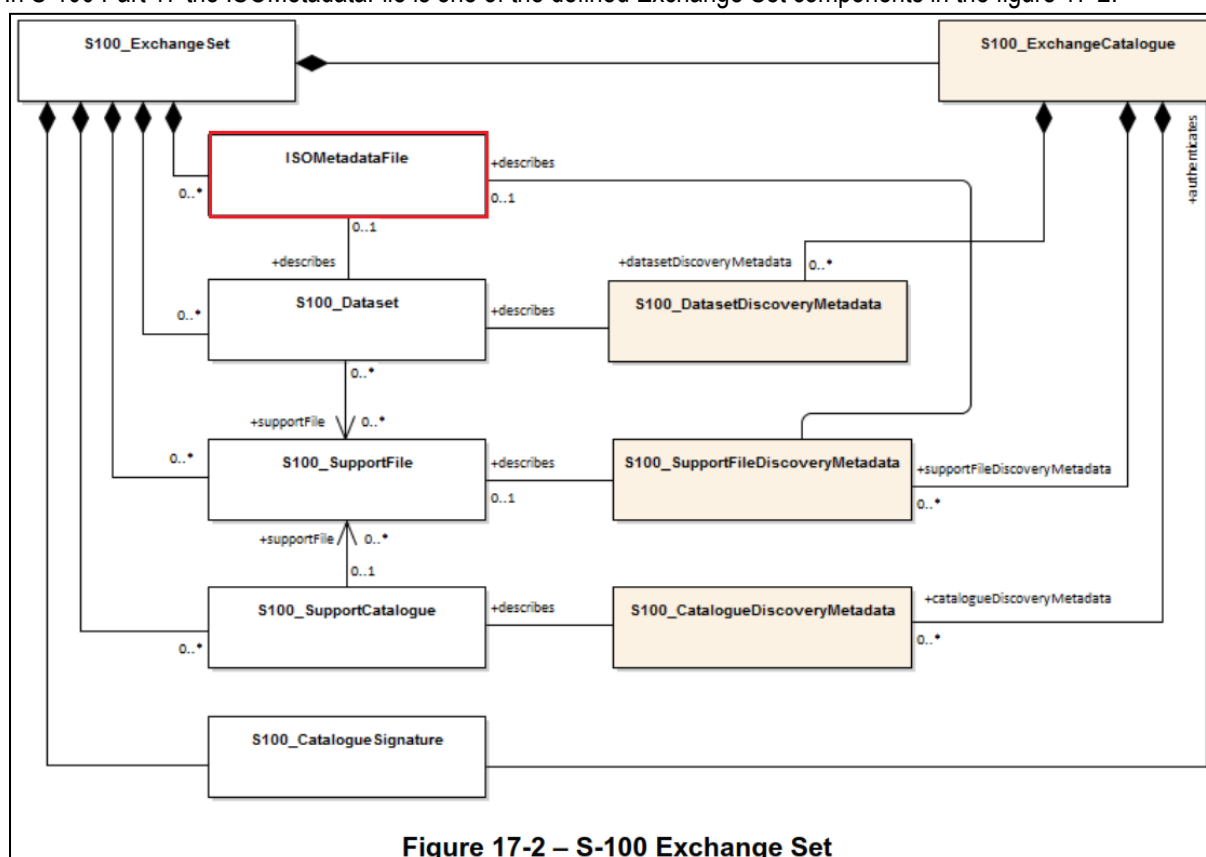
Paper for Consideration by S100TSM9

ISOMetadataFile destination in the Exchange Catalogue

Submitted by:	PRIMAR
Executive Summary:	S-100 should specify the destination of ISOMetadataFile within the Exchange Catalogue. This is a proposal to mandate a location in the SUPPORT_FILES folder. In addition the naming convention of the ISOMetadataFile is discussed.
Related Documents:	S-100 5.0.0 part 17
Related Projects:	

Introduction / Background

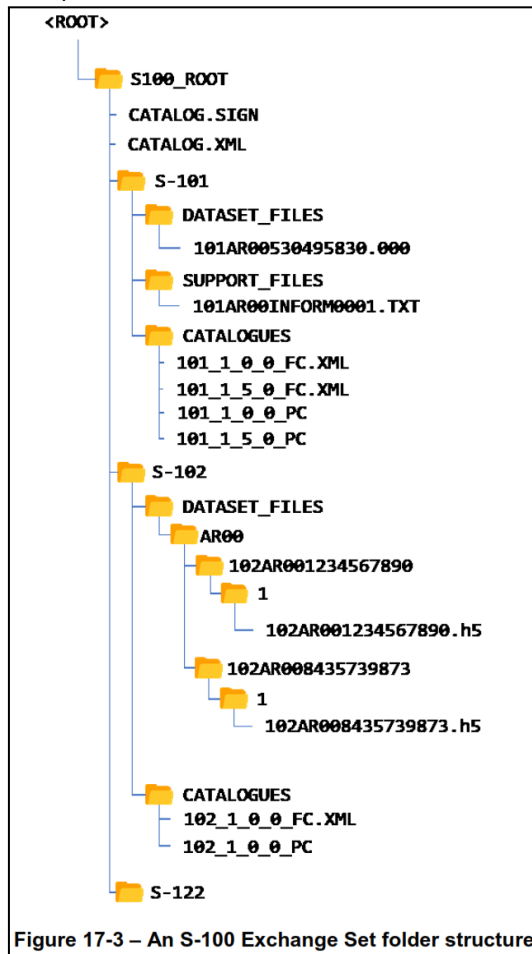
In S-100 Part 17 the ISOMetadataFile is one of the defined Exchange Set components in the figure 17-2:



Even though the ISOMetadataFile is not intended to carry information needed for the end user system, it is still thought to have a function in the exchange of a dataset in the processes before reaching an end user system. This could be internally between different departments within a producing agency (wishing to include relevant information for coworkers) or between a producer and service provider (if any use case exists(?)). There could also potentially be use cases where a producer wishes that a service provider includes the ISOMetadataFile with their data when distributing further down the value chain.

For a service provider we still need to establish routines for including the ISOMetadataFile for further use if intended usage for our customer is not the end user system but for other purposes. We will then need clear instructions in S-100 for where in an Exchange Set the ISOMetadataFile should be stored.

If we compare with figure 17-2 above, all of the elements in that figure are also included in figure 17-3 (S-100 Exchange Set folder structure)- except for the ISOMetadataFile:



1.Placement of ISOMetadataFile in the Exchange Catalogue structure.

Previously, in test production of S-100 products the ISOMetadataFile has been located together with the dataset file itself in the catalogue structure. From our perspective it makes more sense to treat the ISOMetadataFile like we treat supportfiles. That means the destination of the ISOMetadataFile will be available from the S100_SupportFileDiscoveryMetadata attribute fileName like:

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<XC:S100_SupportFileDiscoveryMetadata>
<XC:fileName>file:/S-101/SUPPORT_FILES/MD_<data file base name>.XML</XC:fileName>

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Our suggestion is to amend existing figures to clearly illustrate that the ISOMetadataFile should have its destination in the SUPPORT_FILES catalogue.

2.The naming of ISOMetadataFile.

Currently, S-100 states that supporting resources shall follow the same naming convention as explained in chapter 17-4.3:

Dataset naming shall follow a standard pattern to give implementers the assurance of unique names for incoming datasets.

XXYYYY0000000000.[EXT]

- XXX is the product code (for example, 123 is for Maritime Radio Services; 101 for ENC)
- YYYY is the producer code according to the Producer Code Register
- 0000 is an arbitrary length unique code in alphanumeric characters including any differentiating characters as required. The code shall be unique for the data producer (that is, different data producers may use the same code) and not re-used.
- EXT is the file encoding specific file extension

Supporting resources shall follow the same naming convention. To further assist implementers, data producers shall ensure that the content in the latest revision of supporting resources is specific to the unique code used. Differing content in supporting resources shall be assigned different unique codes across an individual Data Producer's entire content.

For the ISOMetadataFile the naming convention adopted already in S-100 is available in Part 10c-12:

10c-12 Catalogue and metadata files

Exchange set catalogues and metadata files must conform to the standard XML schemas for catalogues and metadata defined for this edition of S-100 and the relevant ISO standards. The files must be named as follows:

CATALOG.XML (or .xml) Exchange catalogue XML file.

MD_<HDF5 data file base name>.XML (or .xml) ISO metadata

This naming convention probably follows the ISO mandated structure. For S-100 to be clear on naming conventions for the ISOMetadataFile, an amendment should be done to the text in chapter 17-4.3

Analysis/Discussion

1.Placement of ISOMetadataFile in the Exchange Catalogue structure.

In order to clarify the intended location of the ISOMetadataFile within the Exchange Set folder structure it is proposed to amend figure 17-3 (and 17-4) accordingly:

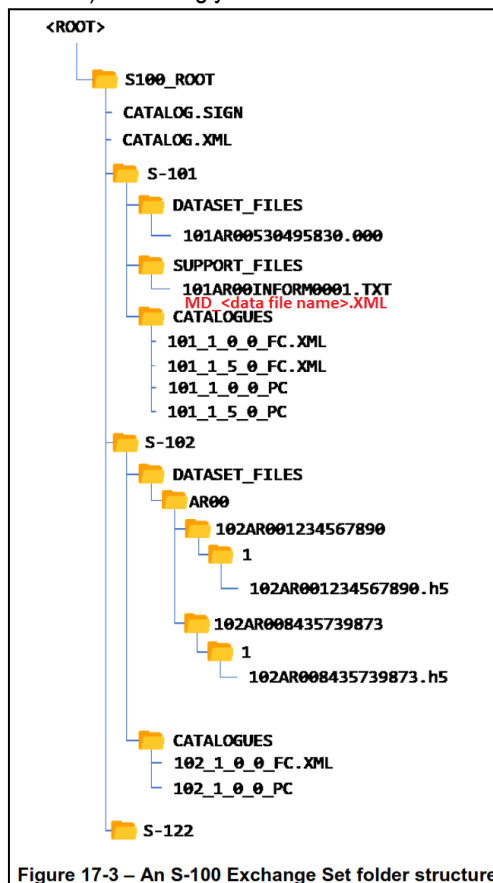


Figure 17-3 – An S-100 Exchange Set folder structure

This change should also be incorporated in figure 17-4

The following explanatory text should be added to number 5 in the numbered list below figure 17-3 in S-100 Part 17 to cater for:

- A. that the ISOMetadataFile should be stored in the SUPPORT_FILES folder.
- B. the naming convention to be in line with S-100 10c-12 (also already an implemented change in S-101 1.1.0).
- C. more explanatory information to convey that the figure(s) incorporates the optionality of placing data files in subfolders or grouped together. The amended proposal would be as follows:

5. Individual data files ~~or detailed ISO 10115-1/2/3 metadata~~ may be optionally placed in their own subfolders (as demonstrated in the S-102 folder in above example) or grouped together (as demonstrated in the S-101 folder in above example). The ISOMetadataFile (ref figure 17-2) must be located in the SUPPORT_FILES folder. If used, all associated ISOMetadataFile must have unique names. The name of the associated XML Metadata file should not be used to describe the physical content of the file. The associated XML Metadata file must be named MD <data file base name>.XML

2.The naming of ISOMetadataFile.

In order for the ISOMetadataFile to contain the ISO naming structure, the following sentence should be added to S-100 chapter 17-4.3 to avoid inconsistent information:

Dataset naming shall follow a standard pattern to give implementers the assurance of unique names for incoming datasets.

XXXYYYY000000000.[EXT]

- XXX is the product code (for example, 123 is for Maritime Radio Services; 101 for ENC)
- YYYY is the producer code according to the Producer Code Register
- 0000 is an arbitrary length unique code in alphanumeric characters including any differentiating characters as required. The code shall be unique for the data producer (that is, different data producers may use the same code) and not re-used.
- EXT is the file encoding specific file extension

Supporting resources shall follow the same naming convention, **except for the ISOMetadataFile that uses the structure MD_<data file base name>.XML**. To further assist implementers, data producers shall ensure that the content in the latest revision of supporting resources is specific to the unique code used. Differing content in supporting resources shall be assigned different unique codes across an individual Data Producer's entire content.

Conclusions

- S-100 must specify the location of the ISOMetadataFile within the Exchange Set folder structure.
- Figure 17-3 and 17-4 should be amended to specify the location of the ISOMetadataFile to be in the SUPPORT_FILES folder.
- Additional explanatory text for the location of the ISOMetadataFile must be added to number 5 in the numbered list below figure 17-3.
- Additional explanatory text for the naming convention of the ISOMetadataFile must be added to number 5 in the numbered list below figure 17-3, and to chapter 17-4.3..
- Additional explanatory text for explaining the optionality of placing data files in subfolders or grouped together must be added to number 5 in the numbered list below figure 17-3.
- An additional sentence should be added to S-100 chapter 17-4.3 to avoid inconsistent information for the naming of ISOMetadataFile.

Action Required of S100TSM9

The S100TSM is invited to:

Note the paper and discuss proposed changes.