

## Paper for Consideration by S-100 WG

## ISO 19115 conformal Metadata Files in an Exchange Set

<b>Submitted by:</b>	SevenCs GmbH
<b>Executive Summary:</b>	Proposal for amendment of S-100 Part 4a
<b>Related Documents:</b>	S-100 Part 4a
<b>Related Projects:</b>	

**Introduction / Background**

According to S-100 Part 4a XML files should be made available by the data producers that conform to the ISO 19115 models and the XML schemas defined for this standard. This proposal is about how to handle such files in an S-100 exchange set.

**Analysis/Discussion**

The ISO 19115 conformal metadata files in XML format (furthermore called XML metadata files) are supposed to be part of the exchange set. In the current standard it is not well defined how this should be done.

Three types of files are supported in an exchange set:

1. Dataset files
2. Support files
3. Catalogue files

In our opinion none of the above matches with the purpose of the XML metadata files.

The are semantically different from support files, they are not explicitly referenced from any object in a dataset. Their main purpose is to deliver metadata to any ISO conformal software, even if such a software is not able to access S-100 information and formats. Such a purpose is called data harvesting; only the metadata are collected not the data itself.

The fact that some of the attributes of the class S100\_SupportFileDiscoveryMetadata (purpose, editionNumber) are not meaningful for XML metadata files is also an indication that it will be better to not handle them as support files.

The current model allow only references to external files (files not in the exchange set?).

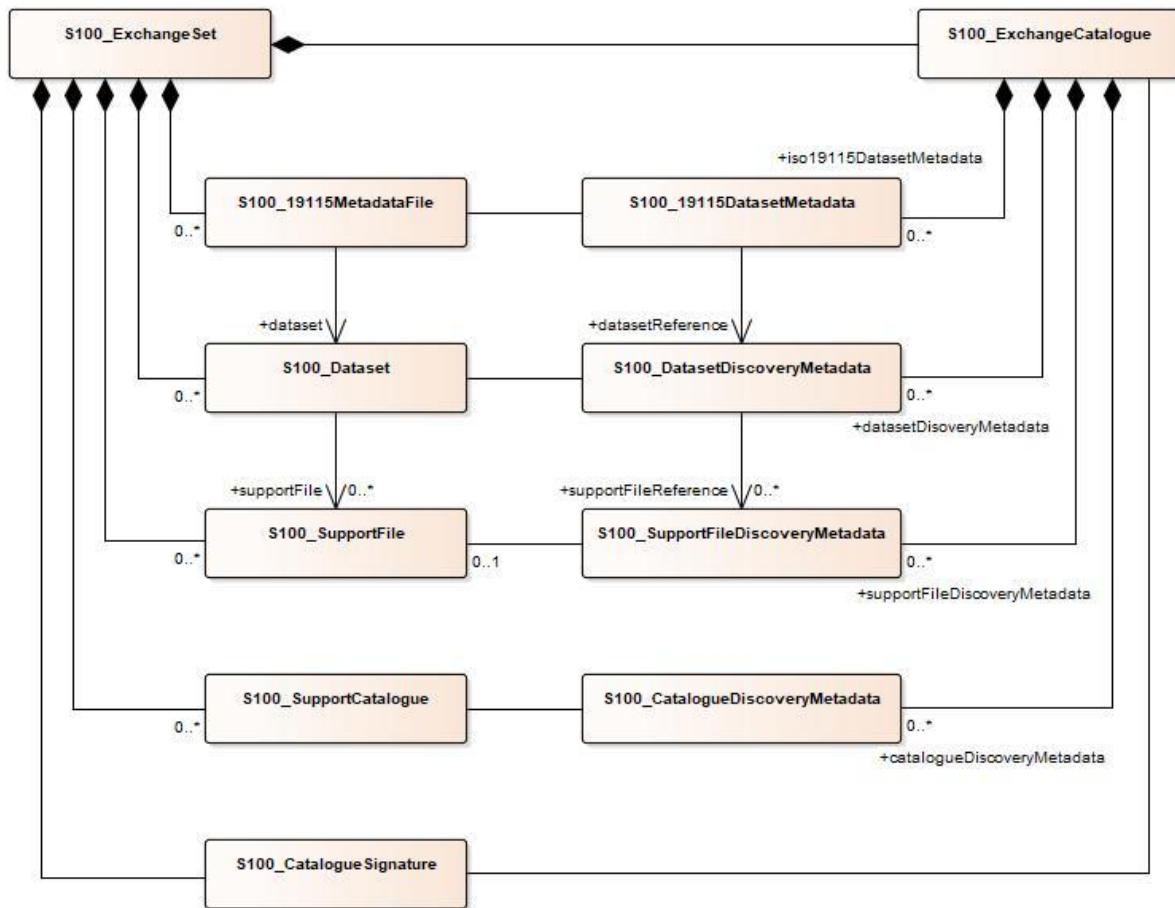
We think that such files should be included in the exchange set since the connection to where the external file can be found might not be always available. Those files are not very large and will not increase the data volume significantly.

**Conclusions**

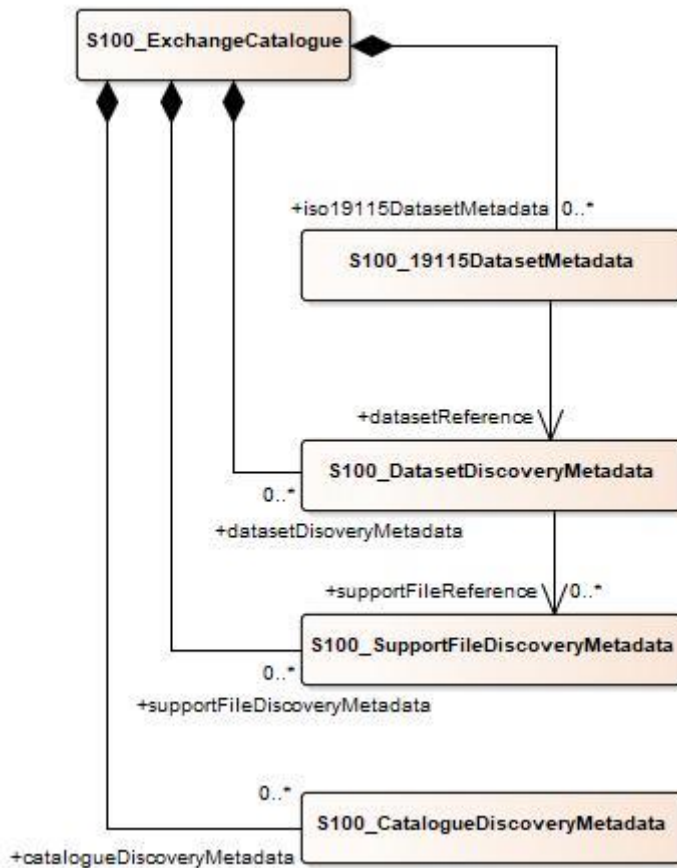
The model should be amended by adding a new type S100\_19115MetadataFile. It should contain the common attributes for S100\_DatasetDiscoveryMetadata, S100\_SupportFileDiscoveryMetadata, and S100\_CatalogueDiscoveryMetadata. We recommend using an abstract base class for all of the above (made in a separate proposal). From that abstract class the new type is derived and only a reference to the dataset has to be added. For referencing the dataset, the value defined in the attribute datasetID from S100\_DatasetDiscoveryMetadata should be used.

The following diagrams should be amended:

Figure 4a-D-2 – S100 Exchange Set



The figure 4a-D-5 S-100 Exchange Set Catalogue should be amended as follows:



The figure 4a-D-6 – S100 Exchange Set Catalogue – class details must be amended as well. We recommend splitting this diagram into several smaller diagrams since it is very large and hard to read as it is currently. The details are already described in the text above. The external reference to the metadata file from the dataset discovery metadata can be kept as optional but should only be used when the XML metadata file is not included in the exchange set.

### Recommendations

If the intention is to include the ISO 19115 XML metadata files in the exchange set, we recommend following our proposals.

### Action Required of [S-100 WG]

The S-100-WG is invited to:

- a. endorse the paper
- b. discuss the topics
- c. conclude on the action list
- d. decide on the next steps forward