

Memorandum

To :
From : MED/C/SZ
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Ref. : EUM/OPS/DOC/12/2096, v1
Date : 25 June 2012

Subject : **Comments on PDGS-SAFE-GMV-TN-12-0082_MetadataAlignment.pdf**

Section 4: Operational vs. LDTP conformance class:

It is understood that the operational conformance class was introduced (primarily) to deal with higher-level products which do not need necessarily preservation and where difficulties may exist to fulfil the OAIS requirements for LTDP.

However, it is believed that this- not mandatory - information is encouraged to be provided (e.g. as optional). Thus the following metadata should be added to the SAFE abstract operational class as optional: Compressed, DecAlgorithm, DecAlgVersion, DecAlgLocation, DecEmulator, Documentation.

The same is true for the representation information: While it wouldn't be required to persist the representation information according to OAIS for the operational class, it is encouraged to provide and reference it.

General (entered as ESA-PANEL-118):

The ESA HMA project has defined a separation between EO Collection Metadata and EO Product Metadata: here an EO Product is an existent set of EO Data, identifiable by some values such as spatial and/or temporal extent and/or a specific band, etc which is located physically within a larger dataset called EO Collection. An EO Collection is a whole set of EO Products sharing the same product specification.

For both types ESA HMA has specified a metadata model:

- For EO Products:

-- "OGC GML Application Schema for EO Products" (OGC 06-080).

-- This is going to be replaced by the Earth Observation Metadata profile of the OGC Observations and Measurements Standard (10-157r3)
(https://portal.opengeospatial.org/files/?artifact_id=47040)

- For EO Collections (definition per reference):
- ISO 19115:2003, Geographic Information – Metadata
- ISO 19115:2003/Cor 1 2006, Geographic information – Metadata - Corrigendum 1
- ISO/TS 19139:2007, Geographic information -- Metadata -- XML schema implementation

From the HMA point of view the SAFE metadata represent metadata for EO products.

The problem with document "Earth Observation Payload Data Ground Systems Infrastructure Evolution 2011-2014 - LTDP SAFE - Metadata Definition Trade-Off, Version 1.0" is that it proposes the inclusion of ISO19115 (plus INSPIRE metadata -> which can be mapped to ISO19115) based EO Collection metadata into the SAFE EO Product metadata definition (as extension) and so breaking the separation between EO Collection and EO Product Metadata. This extension would require the encoding of ISO19115 metadata within the SAFE EO Product metadata which does not make sense as this encoding is already defined in ISO19139.

What we propose is the definition of those parts identified as EO Collection metadata in ISO19115 with 19139 encoding or as ISO19115-2 (19115-2, Geographic information – Metadata – Part 2: Extensions for imagery and gridded data, 2007) and ISO19139-2 encoding (should be found here: <http://eden.ign.fr>).

Further we propose the definition of those metadata specific to EO Products based on Earth Observation Metadata profile of the OGC Observations and Measurements Standard plus a SAFE extension for those metadata elements not covered.

Then there will be two alternatives:

1. Store the EO Collection metadata in a collection specific "place" and link the SAFE EO Product Metadata stored in the Archive Package with the EO Collection Metadata.

or

- 2.

Store the EO Collection metadata and the SAFE EO Product Metadata in the same archive package. Here the EO Collection metadata may be redundantly stored, but handling may be easier.

Then we'll have a clear separation of EO Collection and EO Product metadata (aligned with HMA) and the wheel is not reinvented for collection metadata encoding...