

SWIM-INFO-011 Semantics of metadata

Page Table of Content

- [Requirement](#)
- [Guidance](#)
- [Example](#)
 - [Verification Support](#)
 - [Consistency](#)

Requirement

Title	Semantics of metadata
Identifier	SWIM-INFO-011
Requirement	An information definition that defines metadata fields should base its metadata on the metadata semantics of the AIRM.
Rationale	Interoperability does not only concern the exchanged information. It also concerns the information about the exchanged information.
Verification	Consistency
Examples/Notes	<p><i>Example:</i> Metadata that may be exchanged includes the lineage of the information and access rights to the information.</p> <p><i>Note:</i> The AIRM imports the ISO 19115 [RD 4] metadata standard.</p> <p><i>Note:</i> At the current time, there is a gradual convergence on the use of ISO 19115 for the semantics of metadata. This is particularly true for the Aeronautical Information domain. However, this convergence is not complete.</p>
Level of Implementation	<i>Recommended</i>

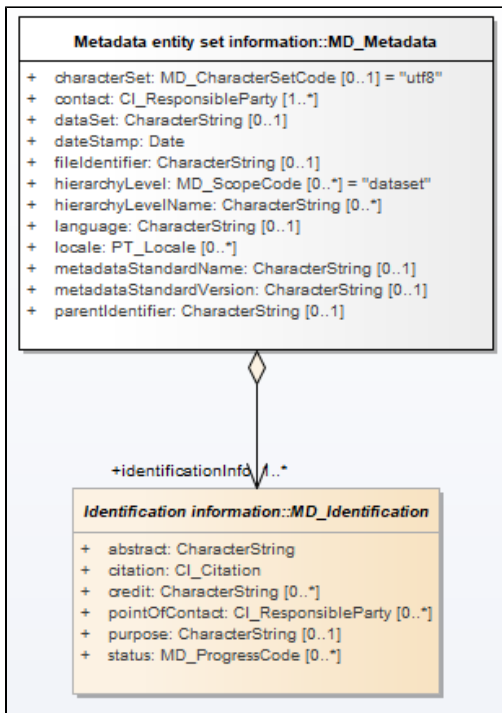
Guidance

The AIRM imports [ISO 19115:2003 - Geographic information — Metadata](#). This forms the semantic reference used in the AIRM itself. Therefore, in effect, this requirement asks that the metadata fields contained in information definitions conform to the semantics of ISO 19115:2003.



Given that the AIRM imports the ISO standard, it is possible to view it, in UML format, by downloading the AIRM.

The figure below contains a snippet of the ISO 19115 standard. You can see some of the basic metadata fields covered by the standard such as contact details and citation information.



Example

ISO 19115:2003 is used by many ATM business domains. It is mentioned explicitly in ICAO Annex 15 Aeronautical Information Services and in the ICAO Doc 10066 PANS AIM. Therefore, the Aeronautical Information Exchange Model (AIXM) makes use of ISO 19115. This is a clear example of when an information definition that defines metadata fields has based its metadata on the metadata semantics of the AIRM.

However, other information definitions may use other metadata standards such as [Data Catalog Vocabulary \(DCAT\) - Version 2](#). The important thing is that the semantics of the metadata can be mapped to ISO 19115. This is crucial for semantic interoperability. A mapping between various metadata standards can be found [here](#).

Verification Support

Consistency

Check that:

- [] The definitions of the metadata fields in the information definition are consistent (not contradictory) with the AIRM's metadata standard (ISO 19115:2003 - Geographic information — Metadata).