

Change Proposal

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|-----------------|-------------|
| ID: | AIXM-167 |
| target version: | AIXM 5.1.1 |
| version: | 1.0 |
| last updated: | 15 APR 2016 |
| status: | Implemented |



GML Profile for AIXM - schema and guidelines

Description

Provide an update of the OGC "Guidance and Profile of GML for use with Aviation Data" (https://portal.opengeospatial.org/files/?artifact_id=62061), including the XSD Schema that implements the GML profile for AIXM, as defined in the OGC updated document.

Rationale for change

See <https://aixmccb.atlassian.net/browse/AIXM-141>

The AIXM 5.1 XML Schema files include references to a "GML Profile for AIXM":

```
<gml:gmlProfileSchema>http://www.aixm.aero/schema/5.1/profile/gml4aixm.xsd</gml:gmlProfileSchema>
```

However, the file indicated by these references does not exist.

An OGC "Guidance and Profile of GML for use with Aviation Data" (https://portal.opengeospatial.org/files/?artifact_id=47859) was first published in 2012 as result of work done by the Aviation Domain Working Group of OGC, including the participation of many AIXM stakeholders, in particular from industry. A revised version of the document was approved by OGC in March 2015. The revised document contains a precise definition of a GML profile for AIXM and it includes an implementation (XSD) of that profile.

Impact assessment

The existing OGC "Guidance and Profile of GML for use with Aviation Data" (https://portal.opengeospatial.org/files/?artifact_id=47859) has already been considered by most AIXM 5.1 implementations as a reference, as many AIXM developers have also been involved in the revision on the GML guidance document. Therefore, most existing AIXM 5.1 data complies with the AIXM profile that was published by the new version. In addition, the GML profile declaration is an informative annotation in the schema, validation of AIXM data sets will continue to be done against the full GML schema. Therefore, AIXM 5.1 data sets will remain valid against the AIXM 5.1.1 schema.

Certain GML elements that are used in current implementations (such as the deprecated `gml:coordinates` element) might be not supported by the GML profile. Data recipients that are prepared to process only data complying strictly with the new profile might be unable to process data coming from data providers that do not apply the profile. If this becomes a real issue, the proposal to develop a mapping script for specific cases will be made to the Aviation Domain Working Group of OGC, who has the technical competence to address the matter.

Change Proposal details

Update the GML Profile annotation in the AIXM_Features.xsd and AIXM_Data_Types.xsd to refer to the profile provided by the Aviation Domain Working Group, in relation with the updated version of the “Guidance and Profile of GML for use with Aviation Data” document. The following annotation shall be included in the two schema for this purpose:

```
<annotation>
  <appinfo>
    <gml:gmlProfileSchema>http://external.schemas.opengis.net/gmlAIXMProfile/1.1/gml321
    forAIXM.xsd
    </gml:gmlProfileSchema>
  </appinfo>
</annotation>
```

Mapping AIXM 5.1 to AIXM 5.1.1 (forward)

NIL (the full GML schema is used for validation, not the profile schema)

Mapping AIXM 5.1.1 to AIXM 5.1 (backward)

NIL (the full GML schema is used for validation, not the profile schema)

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