

AIXM 5.1 Metadata Profile

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Federal Aviation
Administration



Topics

- **Metadata**
- **Metadata Profile**
- **Metadata Models**
 - Message Metadata
 - Feature Metadata
 - Feature Timeslice Metadata
 - Constraint Information
 - Citation and Responsible Party
 - Data Quality Information



What is Metadata?

- **Data that is a description of other data**
- **Examples**
 - Descriptive information about content, quality of data, abstract, point of contact
- **Use of metadata for AIXM is optional**
 - Must conform to metadata profile



Metadata Profile

- **Minimum set of elements required to describe information via AIXM**
- **Derived**
 - ISO 19115 Geographic Information – Metadata
 - Meeting with Subject matter experts
 - Other available literature on metadata



Metadata Profile (cont.)

- **Levels of metadata**
 - Message level
 - Feature level
 - Feature Timeslice level
- **Metadata should be embedded in the message**
- **Metadata should be placed before the information being exchanged**

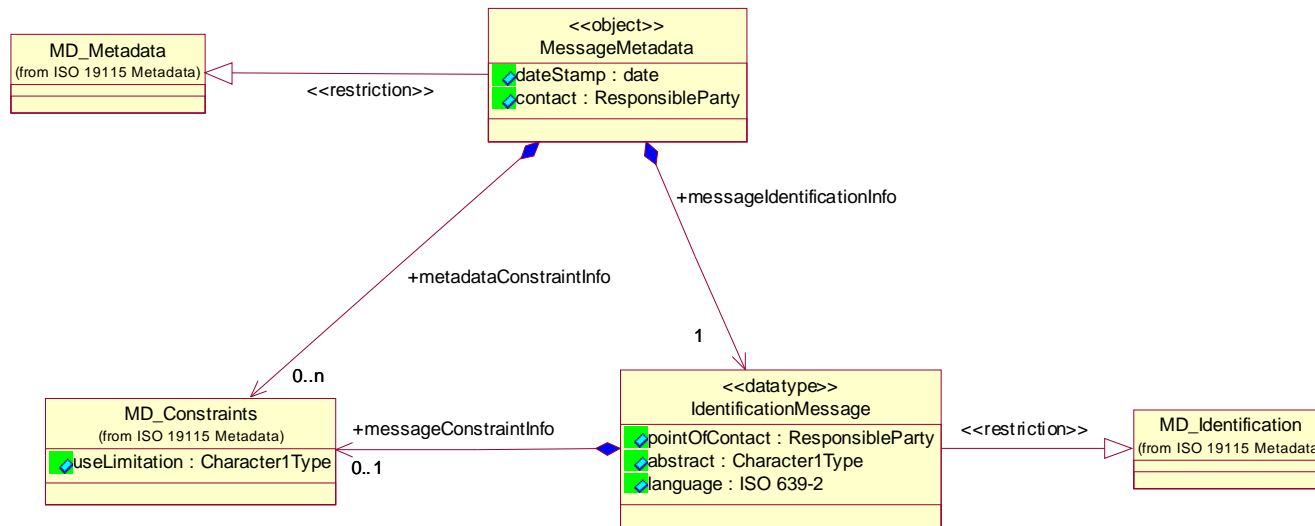


Metadata Models

- **Metadata for the AIXM Message**
- **Metadata for an AIXM Feature**
- **Metadata for an AIXM Feature Timeslice**
- **Constraint Information**
- **Citation and Responsible Party Information**
- **Data Quality Information**



Message Metadata

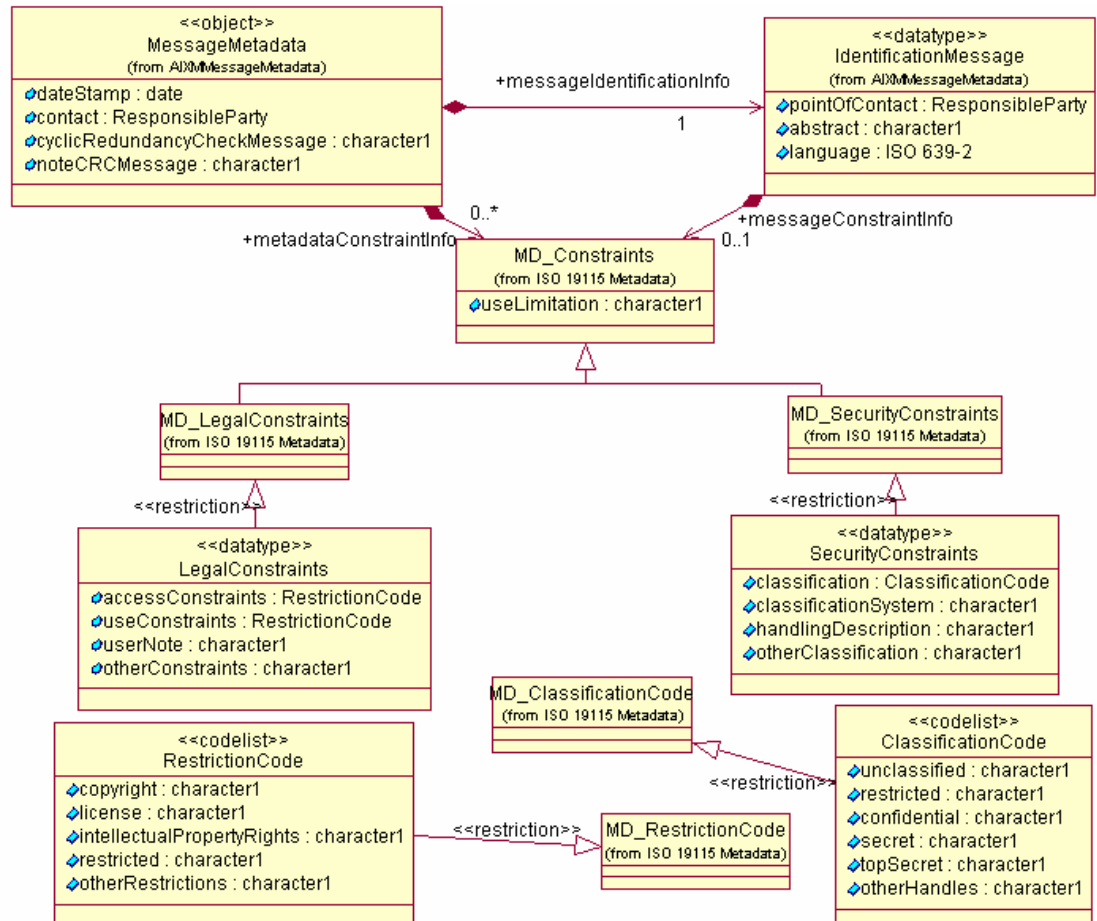


metadataConstraintInfo gives any restrictions on the access and use of the metadata for the AIXM message. The classification code for the message is determined by the sender.

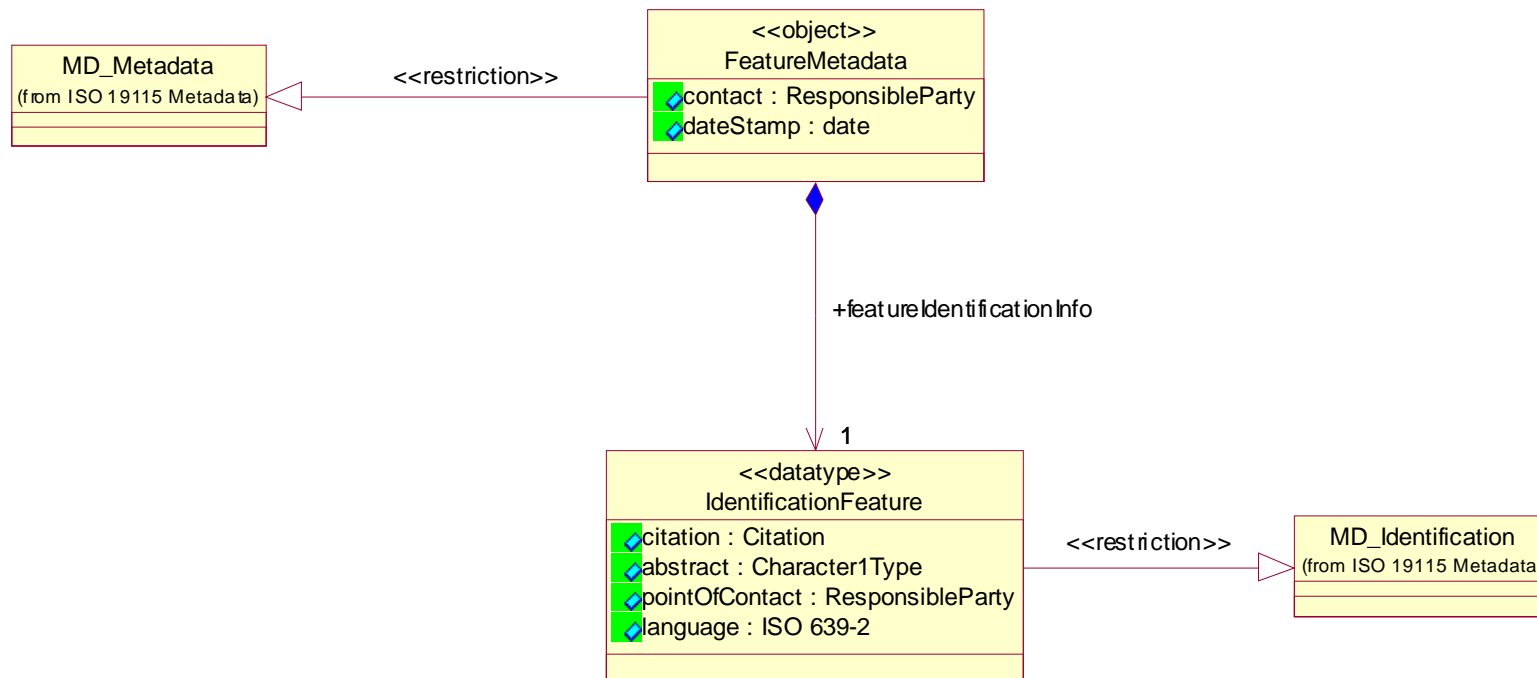
messageConstraintInfo gives any restrictions on the access and use of the AIXM message. If any of the features within the AIXM message have attributes with classification codes, this element uses the highest classification code among the features.



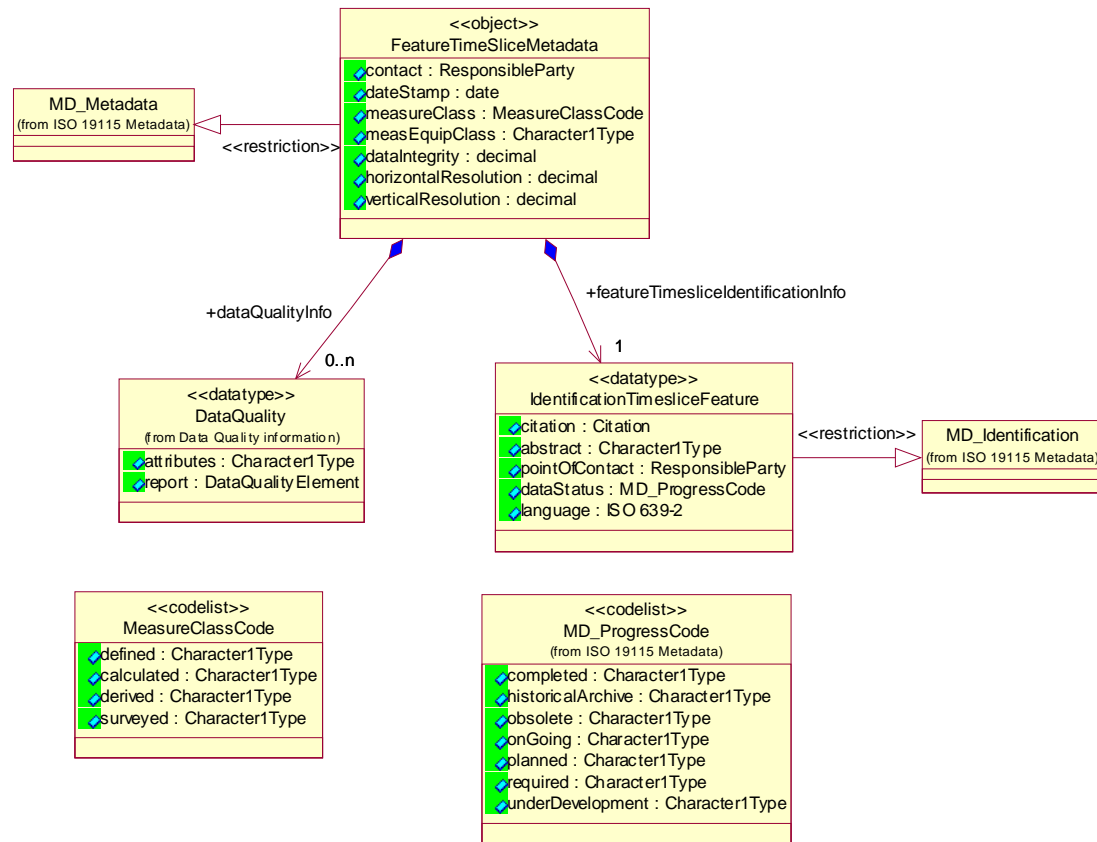
Constraint Information



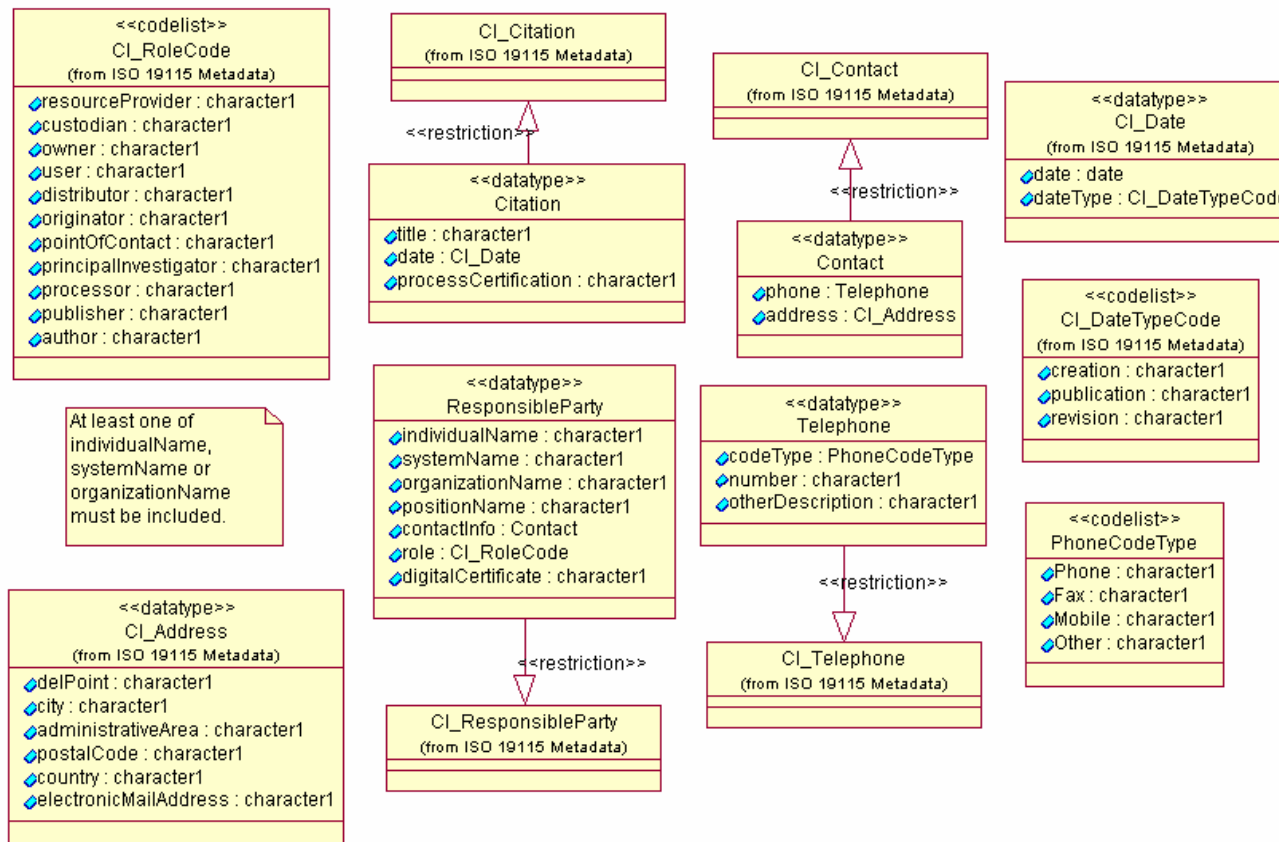
Feature Metadata



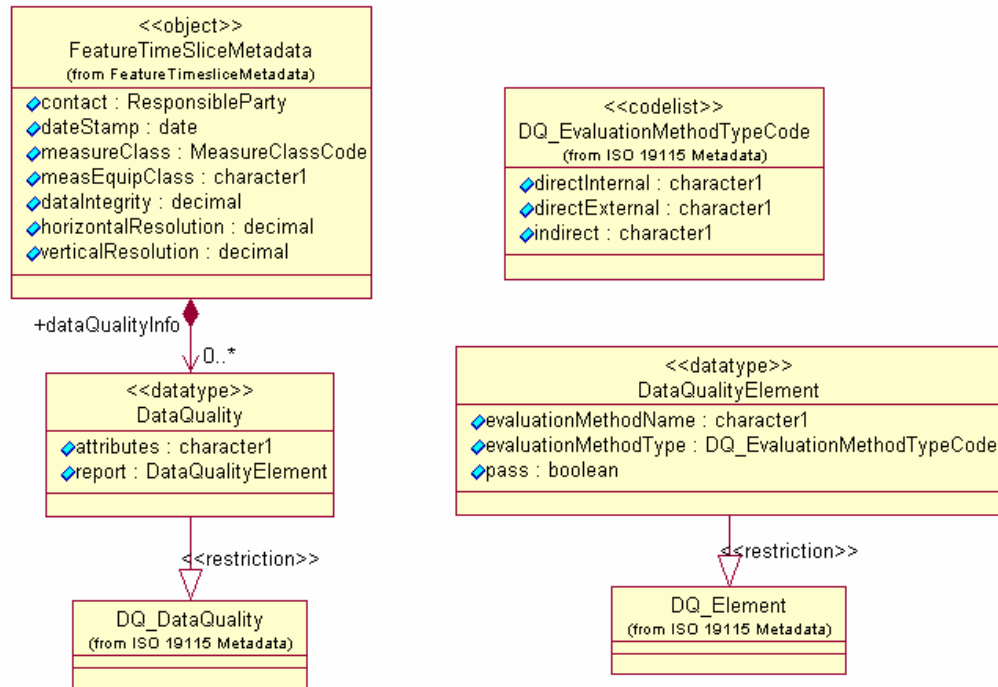
Feature Timeslice Metadata



Citation and Responsible Party



Data Quality Information



Metadata Example

(Beginning of AIXM message)

```
<MessageMetadata>
  <dateStamp>2009-05-15T17:00:00Z</dateStamp>
  <contact>
    <individualName>Christian Grothe</individualName>
    <positionName>Research Assistant at FSR/TUD, responsible for compiling sets of aeronautical data to
    AIXM messages</positionName>
    <role>distributor</role>
    <address>
      <deliveryPoint>800 Independence Ave</deliveryPoint>
      <city>Washington</city>
      <administrativeArea>DC</administrativeArea>
      <postalCode>20591</postalCode>
      <electronicMailAddress>example@faa.gov</electronicMailAddress>
    </address>
    <phone>
      <voice>202-123-4567</voice>
    </phone>
  </contact>
  <messageIdentificationInfo>
    <abstract>This AIXM message only contains an obstacle timeslice of type "baseline"</abstract>
    <language>en</language>
  </messageIdentificationInfo>
</MessageMetadata>
```



Metadata Example (cont.)

```
<FeatureMetadata>
  <dateStamp>2009-05-12T12:00:00Z</dateStamp>
  <contact>
    <role>originator</role>
    <organizationName>Institute of Flight Systems and Automatic Control (FSR)
    </organizationName>
    <positionName>Institute at Technische Universität Darmstadt (TUD)surveying and
    supplying aeronautical data</positionName>
  </contact>
  <featureIdentificationInfo>
    <abstract> Feature for obstacle with point-type geometry – the Donlon
    antenna</abstract>
    <citation>
      <title>xNOTAM study</title>
      <date>2009-05-5T17:00:00Z</date>
      <dateType>creation</dateType>
    </citation>
  </featureIdentificationInfo>
</FeatureMetadata>
```



Metadata Example (cont.)

```
<Obstacle xmlns="http://www.aixm.aero" xmlns:gml="http://www.opengis.net/gml"
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance"
xsi:schemaLocation="http://www.aixm.aero AIXM-GML-ObjectTypes.xsd"
gml:id="ID000000">
<identifier codeSpace="http://www.aixm.aero/Amswell">EA001</identifier>
  <gml:validTime>
    <gml:TimePeriod>
      <gml:beginPosition>1985-01-01T00:00:00</gml:beginPosition>
      <gml:endPosition indeterminatePosition="unknown"/>
    </gml:TimePeriod>
  </gml:validTime>
</timeSlice>
```



Metadata Example (cont.)

```
<FeatureTimeSliceMetadata>
  <featureTimesliceIdentificationInfo>
    <abstract> Baseline timeslice for obstacle with point-type geometry – the Donlon
    antenna</abstract>
    <citation>
      <title>Updated xNOTAM study</title>
      <date>2009-12-12T17:00:00Z</date>
      <dateType>revision</dateType>
    </citation>
  </featureTimesliceIdentificationInfo>
</FeatureTimeSliceMetadata>
<ObstacleTimeSlice gml:id="ID000002">
  <gml:validTime>
    <gml:TimePeriod>
      <gml:beginPosition>1985-01-01T00:00:00</gml:beginPosition>
      <gml:endPosition indeterminatePosition="unknown"/>
    </gml:TimePeriod>
  </gml:validTime>
</ObstacleTimeSlice>
```



Metadata Example (cont.)

```
<interpretation>BASELINE</interpretation>
  <name>Donlon</name>
  <type>antenna</type>
  <markingPattern>painted - vertical bands</markingPattern>
  <markingFirstColour>RED</markingFirstColour>
  <markingSecondColour>WHI</markingSecondColour>
  <constructionStatus>COMPLETED</constructionStatus>
  <groupOfObstacles>N</groupOfObstacles>
  <remark>A fictitious obstacle</remark>
  <madeOf>
    <ObstaclePart gml:id="ID000004">
      <verticalExtent uom="FT">104</verticalExtent>
      <elevationAccuracy uom="FT">5</elevationAccuracy>
      <hasPointShape>
        <ElevatedPoint srsDimension="2" srsName="WGS84"
gml:id="ID000005">
```



Metadata Example (cont.)

```
<gml:pos>52.352718 -31.852205</gml:pos>
<horizontalAccuracy uom="FT">10</horizontalAccuracy>
<elevation uom="FT">255</elevation>
<geoidUndulation uom="FT">-25</geoidUndulation>
<verticalDatum>EGM-96</verticalDatum>
<verticalAccuracy uom="FT">5</verticalAccuracy>
  </ElevatedPoint>
</hasPointShape>
</ObstaclePart>
  </madeOf>
    <isEffective>
      <TimeTable gml:id="ID000006">
        <workingHoursCode>H24</workingHoursCode>
      </TimeTable>
    </isEffective>
  </ObstacleTimeSlice>
</timeSlice>
</Obstacle>
(end AIXM message)
```

